western industry



also: BUYERS' DIRECTORY . BEST MANUALS

Simplicity in steam traps can effect big savings in parts inventory and maintenance time

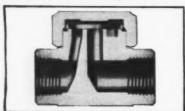
by John W. Ritter, Test Engineer SARCO Company, Inc.

The function of all steam traps is to release condensate and prevent steam loss. However, the method of trapping can make a great difference in cost and effectiveness.

In the Sarco Thermo-Dynamic Steam Trap, the method is fundamental. Air or condensate entering the trap must flow from the inlet tube, radially across the underside of the disc valve, to the outlet. The space between the inlet tube and the disc forms a nozzle in which the static pressure energy of the incoming fluid is partly changed to velocity across the underside of the disc, with a resultant decrease in pressure. (This will be recognized, of course, as the Bernoulli Principle.) Use of this fundamental method means reliability in operation.

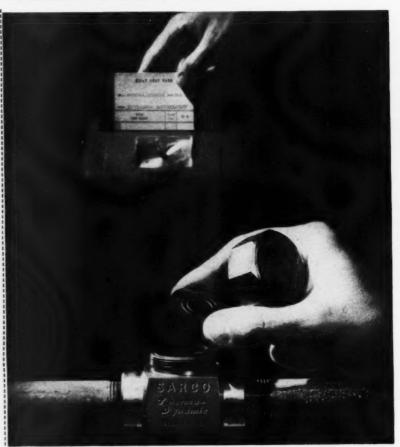
As the high velocity fluid jet strikes the side of the upper chamber, some recompression takes place, so that the pressure above the disc becomes greater than the pressure below it. The pressure reduction under the disc and the pressure recovery above it depend on the internal energy of the fluid. As the condensate above nearly approaches steam temperature, its internal energy is enough to overcome the upward force at the inlet tube and the disc snaps down in the inlet tube, which is the inlet valve seat.

Simultaneously, the disc also seals the outer ring, which isolates the space above the disc from the outlet. The disc valve is therefore held firmly against the inlet valve seat until the pressure in the control chamber is reduced by condensation. The upward force then exceeds the downward force and the disc valve opens.



This 3-part Sarco TD Steam Trap has only one moving part—the hardened, polished stainless steel disc.

No other trap uses the velocity of the fluid to operate the valve or uses the recompression of the flowing fluid to trap the valve closed and to hold it closed. When it closes, it closes tightly — no "operating steam" leaks out.



40 seconds inspection time—
that's all it takes
for a SARCO TD Steam Trap

Just back off the cap of a Sarco TD. Lift out its single moving part, the stainless steel disc. Wipe it off, and drop it back. No adjustment is ever required, at any load or any pressure in its range — from 10 through 600 psi.

The TD operates in any position, won't blow steam at any load. Small as a tee fitting, it can be installed in tight places. Its versatility and reliability cut cost of big replacement inventory.

SARCO COMPANY, INC. 635 Madison Ave., New York 22, N. Y.

Only Sarco makes all 5 types: Thermostatic • Liquid Expansion • Float Thermostatic Thermo-Dynamic • Bucket

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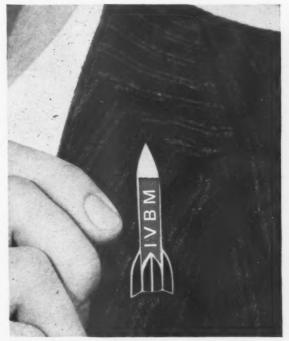
- Stepped-up processing assures even faster, more dependable delivery of regular requirements.
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APRIL - 1959

western industry



MATERIAL HANDLING & PACKAGING

BUYERS' DIRECTORY . BEST MANUALS

54 KNOW-HOW NOTEBOOK NO. 1 126 HELPFUL LITERATURE

147 INDUSTRIAL WEST ON ITS WAY 162 ADVERTISERS IN THIS ISSUE

132 NEW EQUIPMENT

HANDLING STEPS UP WITH PRODUCTION (Cover Photo)	33	New handling techniques are required to keep pace with ever increasing Western production. Here is how one firm matched an increase in volume.
FLOOR LEVEL HANDLING	35	A roundup featuring pre-loaders; special lift trucks and attachments; tractor shovels in production; special dollies for cylinders.
MIDDLE LEVEL HANDING	38	Controlled handling by conveyors with wheels; automatic pipe handling; loading lumber onto conveyors; pallet elevator for unitizing.
OVERHEAD HANDLING	40	Unique belt tripper solves space problem; crane scale cuts handling costs; semi-automatic tongs save time; conveying of small parts.
PACKAGING	43	Improving packaging and lowering costs; packaging delicate instruments; efficient use of gummed and masking tape; streamlining with strapping.
LATEST MATERIAL HANDLING MANUALS	62	The best manuals on racks, shelves, bins; conveyor belting and idlers; strapping equipment are yours for the asking.
M-H and PACKAGING BUYERS' DIRECTORY	77	These 48 pages contain manufacturers' listings, their sales outlets in the West, and a classified products section arranged for your convenience. 12 WESTERN MEETING REPORTS

THE ESSENTIAL PUBLICATION FOR MANUFACTURING MANAGEMENT IN THE NEW INDUSTRIAL WEST

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Plug-in Duct is powered by Lo-X feeder duct—together they form Bull-Dog's integrated BUStribution[®] system. Both ducts are available in standardized and interchangeable straight sections, elbows, tees and crosses... can be installed sideways, on edge, vertically or horizontally.

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NEW SMALL SIZE!

MANY NEW SAVINGS!

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Dyna-V is capable of handling up to three times as much horsepower in a given space. Dyna-V opens vast new possibilities for better, more economical machine design. And, in most instances Dyna-V costs less!

An entirely new high in strength and horsepower capability is packed into Dyna-V Belts. Cross section dimensions are substantially reduced—top width is much narrower. Dyna-V Sheaves are designed for these belts. Narrower grooves reduce face width—and weight. Costs are lowered. Smaller diameter sheaves and shorter center distances multiply savings.

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The benefits of Dyna-V go beyond compactness and initial low cost. Smaller sheaves reduce shaft overhang—increase bearing life. The dimensional stability of Dyna-V Belts (which are heat resistant, oil resistant, static conducting) solves the problem of belt matching. Every belt carries its full share of the load. The crowned top of Dyna-V Belts is a new concept in belt design. Combined with proved concave sidewall construction, it insures perfectly even load distribution between belt and sheave.

A complete bulletin on Dyna-V, including drive selection tables, will soon be ready. If you want one of the first copies, write us at once. Or see your local Dodge Distributor.

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1959



Dyna-V Drives for capacities up to 50 hp use the new "3V" belt cross section and Dyna-V Sheaves to match. Dyna-V Drives for capacities up to 200 hp use the new "5V" belts and sheaves. Both sizes available from Dodge distributors' stocks.

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COMPARISON, ILLUSTRATED ABOVE - 3 HP, 1750 RPM, 2.41 TO 1 RATIO

	BE	LTS		SHEAVES		CENTER		WEIGHT	COST	
	Number	Size	O.D. Driver	O.D. Driven	Width	DIS- TANCE	HP	(LBS.)	Per hp	Per Drive
CONVENTIONAL TAPER-LOCK DRIVE	3	A42S	4.15"	8.95"	21/2"	12.3"	4.62	24.7	\$5.91	\$27.38
DYNA-V TAPER-LOCK DRIVE	2	3V400	3.35"	8.00"	13/2"	10.8"	5.0	18.0	\$4.50	\$22.50
% SAVING Savings vary with different sized drives			19%	10%	56%	12%	+	27%	23.8%	17.8%

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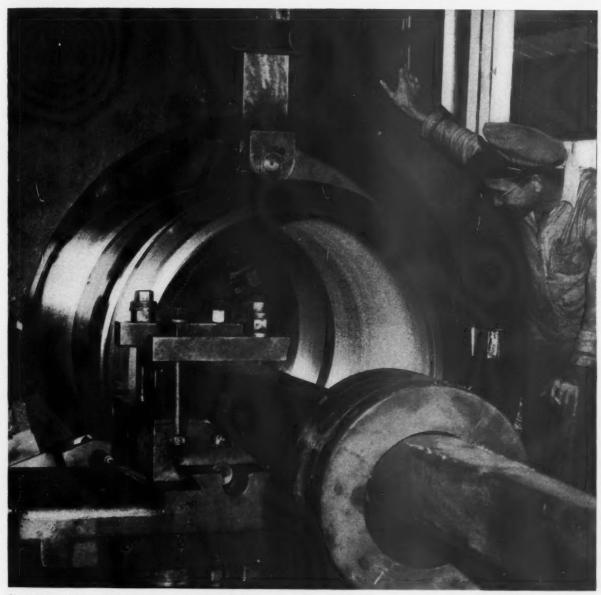
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aluminum.

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New Venturi tube produced by National for San Diego aqueduct has 45" O.D., 35" I.D., is 69" long and weighs 12,000 pounds.

NATIONAL helps to build a new San Diego water system!

The 12,000 pound tube above is one of the largest mandreled forgings of stainless steel ever made by National's Torrance Plant, When installed in a new San Diego aqueduct system, it will deliver up to 135,000 gallons per minute.

Neither the forging nor the special contoured I.D. of this tube was a problem for National Supply. We have the facilities to produce all or any part of a big, specialized steel product, and do work like this daily. Everything is done in our Torrance Plant—the largest completely integrated machinery making plant in the West. Take advantage of our convenient facilities. Call National whenever you need a special steel product. The number is Fairfax 8-4111.



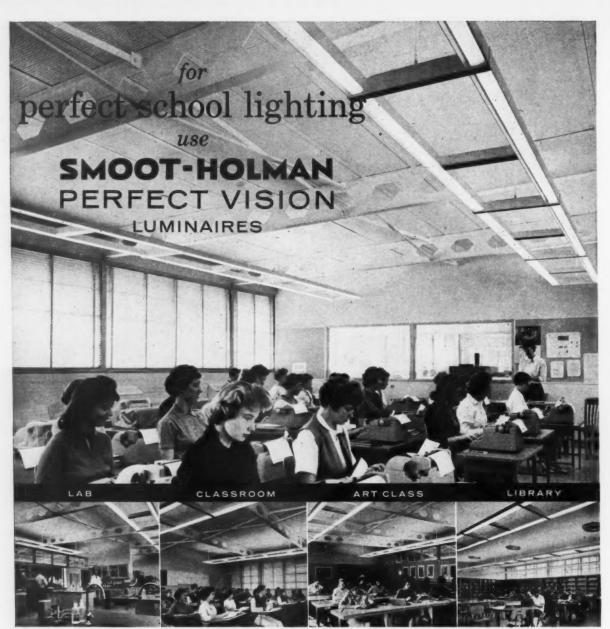
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Architects: Marsten & Weston . Consulting Engineers: Ralph E. Phillips, Inc. . Electrical Contractors: McGee Electric Co.

The above photos were taken at Ganesha High School, Pomona, California, and illustrate the excellent lighting furnished by Smoot-Holman fixtures. Winston Nelson, principal of Ganesha High School states, "The fixtures provide ample foot candle illumination spread evenly over each room. We have noticed an absence of flicker and ballast noise, and we are pleased with the easy maintenance of these fixtures." B. J. Triggs, of Ralph E. Phillips, states, "It has long been recognized that indirect lighting is ideal for close work because of its lack of glare reflections and shadows. However, to obtain higher intensities we have used direct lighting. It was not until the advent of Smoot-Holman P-V series that we found it advantageous to use indirect lighting again. In this school we proved that in a typical classroom (28' x 45') using the 800 m. a. lamps in two rows of P-V fixtures we obtained practically the same illumination intensities as by using conventional 48" rapid start lamps in three rows of direct fixtures. Using only two-thirds of the lineal feet of fixtures and only two-thirds of the lighting outlets and light switches, we actually accomplished a considerable savings to the school board and gave them a better installation."

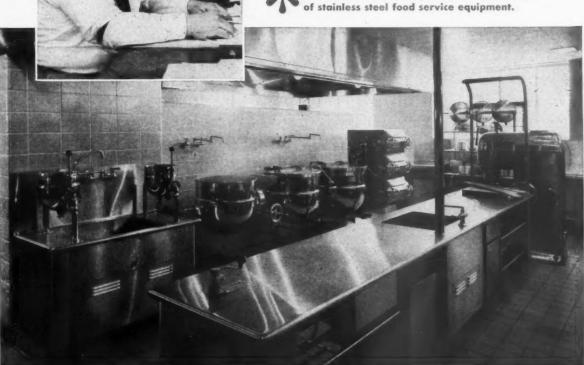
Send for free, informative brochure, "What You Should Know About School Lighting."

Scientifically designed lighting by SMOOT-HOLMAN CO

321 N. Eucalyptus Ave., Inglewood, Calif.

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"ESCO WAREHOUSE SERVICE HELPED TO END OUR NEED FOR COSTLY STAINLESS STEEL INVENTORIES" states President Harry Vetter, United Fabricators, Inc., Seattle manufacturer



Food service equipment installation by United Fabricators, Inc., at the St. Francis Cabrini Hospital, Seattle, Washington.



"Since our installations are custom-tailored to the customer's specific requirements, convenient sources for a wide range of stainless steel fabricating materials are essential to our operation," explains Vetter. "The excellent service and complete stocks of nearby ESCO warehouses help us complete our jobs on time and save us the cost of carrying heavy stainless steel inventories," concludes the firm's president.

Whether your stainless steel requirements call for small amounts or carload shipments, your nearby ESCO stainless steel warehouse can supply your needs quickly and economically. Sheet, plate, bar, wire, pipe, tubing, fittings, fastenings and valves are available in a complete range of stainless steel alloys. Plastics are also available. Get complete details today from your nearest ESCO representative.



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Dry kilns club

"WHY SEASONED LUMBER?" will be the theme of the 11th annual meeting of the Western Dry Kilns Clubs at Eureka, Calif. on May 7 and 8.

Members of the eight Western Dry Kiln clubs attending the annual session are scheduled to hear representatives from wood production, specifying, and research organizations talk on the importance of seasoned lumber. The three technical sessions at the meeting also will be devoted to reports from the individual clubs on projects and activities of the past year.

Further information may be obtained from **Bob Newman**, The Pacific Lumber Co., Scotia, Calif.

Golden Gate ASTE

THE GOLDEN GATE CHAP-TER of the American Society of Tool Engineers has elected the following officers:

Charles H. Driesbock, chairman; John E. Wilson, first vice chairman; Newell T. Partch, second vice chairman; Clarence A. Bergendorf, secretary; Robert Heath, treasurer.

No. Calif. AMHS

THE NOMINATING COM-MITTEE of the Northern California chapter, American Material Handling Society, has submitted these candidates for officers for 1959-60:

President — Leo Delventhal, Western Pacific Railroad; Board of Directors (four to be chosen): E. C. Dell'Ara, Bay & River Navigation Co.; V. E. Dyckman, Dow Chemical Co.; Al Hamre, E. C. Buehrer Assoc.; Ed Hartsinck, Lifton, Inc.; C. L. Jacobs, Crown Zellerbach Corp.; John Mustanich, Southern Pacific Co.; W. D. Peppard, Mathews Conveyer Co.

Human relations lab

HUMAN RELATIONS and administrative problems facing upper-level leaders in government, industrial engineering, business, military, and educational organizations, will be analyzed at The Western Regional Leadership Laboratory in Human Relations and Supervisory Skills, to be held June 17 to 20 on the Santa Barbara campus of the University of California.

The laboratory, meeting at the picturesque campus, is designed for executives, administrators, and upper-level supervisors and managers. The program will consist of lectures by specialists in applied human and social sciences, intensive discussion groups, and social and recreational activities.

The application deadline is May 15, with applications and additional information available from the Department of Conferences and Special Activities, University of California Extension, Los Angeles 24.

Industrial spectroscopy

MODERN INDUSTRIAL SPECTROSCOPY— the fourth annual course—will be held August 17 through 28 at Arizona State University, Tempe, Arizona. Particularly designed for chemists and physicists from industrial laboratories which make use of spectrographic and spectrophotometric equipment, this intensive course of lectures and practical work will serve to train personnel to staff these laboratories.

The program includes basic theoretical considerations and practical instrumental training with lectures being given each morning and the afternoons devoted to laboratory work. For complete information write to **Dr. Jacob Fuchs,** Director, Modern Industrial Spectroscopy, Arizona State University, Tempe, Arizona.

IRE regional meet

FORTY-NINE TECHNICAL PAPERS will highlight the 1959 IRE Seventh Region Conference and Electronics Exhibit to take place at the University of New Mexico, Albuquerque, May 6-8. Topics will include: Instrumentation of Nuclear Explosions, Electronics for Space Medicine, Electronics for Space and Upper Atmosphere Research, Electronics and Thermonuclear Research and The New Electrical Engineering Education.

Exhibit space includes 175 booths located in Johnson Gymnasium. The technical sessions will be held in the same building except for the opening session which will be held at the Western Skies, the conference hotel. Social activities including luncheon, cocktail party and Ladies Activities will also be centered in the hotel. A field trip to Sandia Laboratory Area 3 test facilities is also scheduled.

Golden Gate ASM

THE FOLLOWING CANDI-DATES have been selected by the nominating committee for elective officers of the Golden Gate chapter of the American Society of Metals:

Chairman, Robert L. Nichols, Earle M. Jorgensen Co.; Vice Chairman, Robert C. Bertossa, Pyromet Co.; Secretary, Norman W. McLeod, Tube Forging Co., and Treasurer, Thomas E. De-Hart, Jones and Laughlin Steel Corp.

"NEW DEVELOPMENTS IN MATERIAL HANDLING" was the subject of an address by George V. Clark (standing), district manager for Baker Industrial Trucks, before members of the Northern Calif. chapter of the American Material Handling Society. Mr. Clark told of smaller batteries with more power . . . improvements in engine components . . . tires of polyurethane and other improvements in the present and future.



SPRING STRESSES that formerly

required premium-priced materials can now be handled by Duraflex, which costs no more than regular phosphor bronze. Write for literature and samples, today.



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August 1, 1958

The American Brass Company 414 Meadow Street Waterbury, Connecticut

SUMMARY OF ENGINEERING LABORATORY REPORT No. 8158

SUBJECT: Fatigue Life and Endurance Limit testing of:
"DURAFLEX" Superfine-Grain Phosphor Bronze and Commercial Quality
Phosphor Bronze, 5% (A) spring quality strip material.

SPRINGS:

Plat spring strip was made into the usual type of contact springs used in switches, relays and instruments. These springs were deflected at about 1 cycle per second in a specially built fatigue testing machine and the deflections recorded.

STRESSES: The springs were deflected from the initial free position of zero stress to a final position having a bending stress of 77,000 p.s.i.

This stress, for phosphor bronze strip is unusually high and is higher than stresses ordinarily recommended for Beryllium-Copper or Stainless Steel for such severe service.

Commercial Quality Phosphor Bronze, 5% (A) springs acquired a permanent set quite early and broke at an average number of deflections of 463,374.

"DURAFLEX" springs were still satisfactory, showed no permanent set, no loss of load and no breakage at 4,000,000 deflections.

CONCLUSION: Design stresses for "DURAFLEX" can be at least 50% higher than the stresses for Commercial Quality Phosphor Bronze, 5% (A) as shown in the TOOL ENGINEERS HANDBOOK.



HC.R

Harold C. R. Carlson, P.E. Licensed Professional Engineer

Respectfully submitted, THE CARLSON COMPANY

THREE SPRINGS of regular Phosphor Bronze, 5% (A), actual size, took a permanent set at about 200,000 deflections and fractured at an average of 453,374 deflections.



FOUR SPRINGS of Duraflex Superfine-Grain Phosphor Bronze, 5% (A) were still satisfactory after 4,000,000 deflections.

URAFLEX, available in Phosphor Bronzes (A), (C) and (D), in strip and wire, offers a host of opportunities to cut costs while maintaining or improving quality and performance. For further information and technical help to select the alloy to meet your needs-call in your American Brass Company representative, or write: The American Brass Company, 14900 Garfield Ave., Paramount, Calif. In Canada: Anaconda American Brass Ltd., New Toronto, Ont.

SUPERFINE-GRAIN PHOSPHOR BRONZE

Made by The American Brass Company

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For a real money-maker, you can't beat this handy TOLEDO—just ask the man who owns one. Use it anywhere . . . just a 30° swing of the easy-grip handle is all that's needed to thread pipe or conduit accurately and quickly . . . it's lightweight for easy overhead work, too. Dies change sizes in seconds . . . simply pull the pawl—die head drops out—slip in another and you're set to go. Wide choice of dies available for various metals and materials, including electrical conduit and lefthand—and they're all easily resharpened. If you don't already own one, see your supplier today. He'll be glad to show you the complete line of quality TOLEDO tools.

3 SIZES AVAILABLE No. 00 1/8" to 3/4"

No. 11 1/6" to 11/4" No. 12 1/6" to 2"

SOLD THROUGH YOUR FAVORITE DISTRIBUTOR

TOLEDO

PIPE THREADERS • PIPE WRENCHES • PIPE MACHINES

THE TOLEDO PIPE THREADING MACHINE CO. TOLEDO 4, OHIO, U. S. A. for more details, circle No. 10 on Reader Service Postcard

Western Meeting Reports

Smith re-elected Western AMHS head

HIRAM D. SMITH, Matson Terminals, Inc., has been re-elected Western regional (Region VII) vice president of the American Material Handling Society. Mr. Smith was re-elected at a regional meeting held last month in San Francisco.

Other matters discussed and resolutions adopted

at the meeting:

Procedure for handling reports and communications—It was agreed that reports and communications from national headquarters would be handled by a Regional Council headed by the regional vice president and delegates from each of the chapters.

Shows and conferences—The matter of material handling shows for the West still has to be resolved. However, both Los Angeles and San Francisco have tentative plans for shows, perhaps starting in 1960. It was agreed that conferences would be an individual chapter matter. Los Angeles is planning its 1960 conference in a different location than the show. Conference proceeds would be retained by individual chapters.

AMHS-SPHE merger—The merger question is still undecided. No action or resolution will probably be issued until the AMHS national meeting

in June.

Chapter development—A scholarship plan was advanced by Leo Delventhal, of San Francisco. This scholarship plan would be directed toward developing good material handling and packaging engineers. This is in line with the desire of chapters to work more closely with colleges and universities. Also, it was hoped that chapters of AMHS could be developed in such areas as Sacramento, Salt Lake, San Jose, Phoenix, and Hawaii.

Speakers and programs—An idea was advanced by Nick Palmer, Denver, to rate speakers and circulate such information to other chapters. Also, it was suggested that payment could be made for speakers and for their expenses. Another idea advanced was that an attempt be made to get vendors

to bring users to meetings.

Inter-chapter communications and assistance—An exchange of ideas between chapters was proposed. Nick Palmer cited the example of the beneficial exchange of information between his chapter and Houston.

Fork truck rodeo — Bob Hammer, Los Angeles, chairman of the fork truck rodeo last year, gave details on the advantages of holding a rodeo and told of the success of rodeos held in the Los Angeles area.

Attending the regional meeting were: Deo Delventhal, John Sullivan, Ray Perin, Howard Fisher, Walter Brumberg, Ellis Wooley, Hiram Smith... all of San Francisco; Nick Palmer, Denver, and Bud Semco and Bob Hammer of Los Angeles.

Western container conference . . .

A WESTERN CONTAINER COMPETITION may be sponsored by the Southern California chapter of SPHE if, by your response, they feel it would be worthwhile.

Idea for the contest was generated because the national competition will not be held this year.

. . . continued on p. 18

STANDARD ENGINEER'S FIELD REPORT

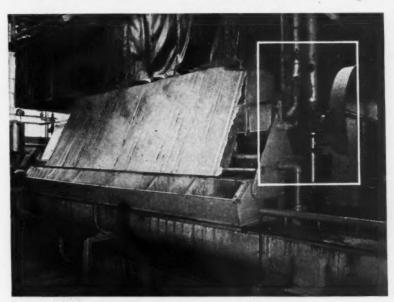
PRODUCT Industrial Con-

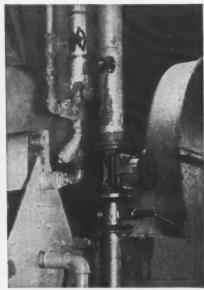
DUCT Industrial Grease

Exchange Orange Produsts

Ontario, California

Chevron Grease eliminates separation in bearings





Heat, moisture and fruit acids create a constant problem of rust, corrosion and grease separation on anti-friction bearings at Sunkist Growers' by-products plant. (See close-up) But Chevron Industrial Grease protects all equipment. Maintenance Supervisor Gene Gilbert says, "This grease even holds up

in the steamy air around our vacuum drum filter (above) used in producing pectin...other greases we've used tended to separate into oil and soap base in packed bearings...even caused failures. But not Chevron Industrial Grease. It never separates, and does a better job of fighting rust and corrosion, too!"





Why Chevron Industrial Grease provides superior lubrication



- Top wear-prevention qualities
- Unusual water resistance
- Rust protective
- Non-corrosive
- · Mixes with any grease
- Extreme work stability
- Melting point, 500°F. plus
- Pumpable over wide temperature range

For More Information on this product contact your Standard Engineer or Representative or write 225 Bush Street, San Francisco 20, California.

Juice finishers (left) and pulp drier (right) use Chevron Industrial Grease, demonstrating wide application of this lubricant at Exchange Orange Products. Because this grease is waterproof, frequent washing down of finishers has no effect on lubrication efficiency. In pulp drier and dehydration equipment Chevron Industrial Grease works in temperatures up to 300°—yet this same lubricant does equally well in

quick freeze votators at low temperatures. Exchange Orange Products operates continuously 9 months a year, producing orange juice, syrups, oil, pectin, dairy feed and a long list of other by-products from oranges not marketed as fresh fruit.



TRADEMARKS "CHEVRON" AND CHEVRON DESIGN REG, U.S. PAT, OFF.

STANDARD OIL COMPANY OF CALIFORNIA

Gate City Steel Offers Industry

3 COMPLETE SERVICES



STEEL FABRICATION

Fabrication has long been an important part of Gate City Steel's service to industry in Western America. Complete and modern fabrication facilities allow the fabrication of steel for buildings, bridges, hydoelectric dams and other large construction projects.

HOT DIP GALVANIZING

Hot dip galvanizing is recognized as the best means of protecting exposed steel structures from the elements. This 22 foot dip tank at Gate City Steel's galvanizing plant can accomodate parts for transmission towers or other large steel structures. These facilities are also available to other fabricators on a sub-contract basis.



Learn how the Friendly Giant can serve you better Mail this coupon today for FREE 20 page descriptive brochure on services offered by Gate City Steel.

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Company
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City
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STEEL SERVICE CENTER

Hundreds of steel users all over Idaho and Eastern Oregon, from small repair shops to large equipment and machinery manufacturers, depend on Gate City Steel's large stocks of steel to maintain their own steel inventories. Complete cutting and forming equipment is an added service offered to steel service customers.



. . . for more details, circle No. 12 on Reader Service Postcard

YALE TRUCK OPERATES UNDER ALL CONDITIONS

With speed, safety and stability . . . come rain, shine or rugged terrain!

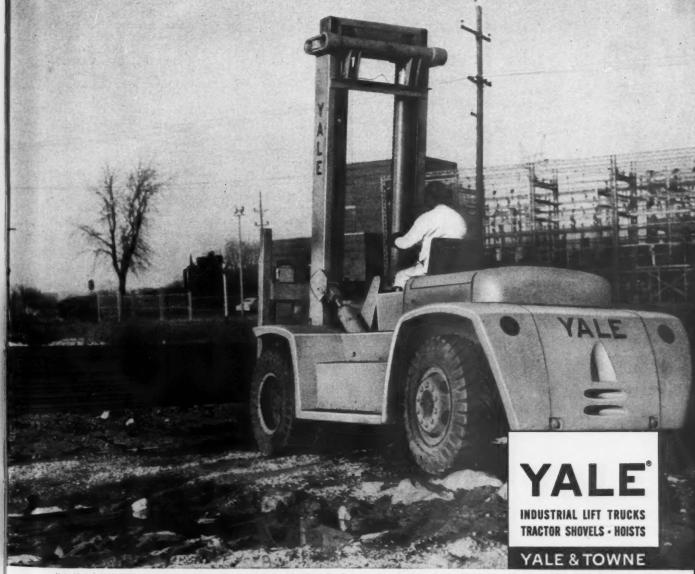


Bringing loads of 15,000 to 20,000 lbs. over rugged terrain in any weather is part of a day's work for the Yale G-3. Twin cylinder lifting! Low center of gravity! I-beam frame assembly! Extrarugged overall construction! It all adds up to stability never before attainable in a gas truck of this capacity.

As for speed! The Yale G-3 travels at 20 mph! Lifting speeds up to 60' a minute—extra-fast, controlled lowering, too. Operations are carried out with unusual safety. Operator, seated between widely spaced uprights, has absolutely

unhindered forward view. Excellent ground visibility to rear of truck, too.

The Yale G-3 is easily convertible to LP-gas. Available with fluid coupling, standard transmission or Yale's fully automatic Torque Transmission. For further information about this rugged member of Yale's profitable line of industrial lift trucks and hoists, contact your Yale representative. Or write for brochure #5230 to: The Yale & Towne Manufacturing Company, Materials Handling Division, Philadelphia 15, Pennsylvania, Department GT 1-H.



Yale Materials Handling Division, a division of The Yale & Towne Manufacturing Company. Manufacturing Plants: Philadelphia, Pa., San Leandro, Calif., Forrest City, Ark.

Products: Gasoline, Electric, Diesel and LP-Gas Industrial Lift Trucks • Worksavers • Warehousers • Hand Trucks • Industrial Tractor Shovels • Hand, Air and Electric Hoists



Master of Every Nut and Bolt...

MRIDGID. Hex Wrench

Wide-open fast-action multi-sided grip on every hex, square and flathead!

Quick adjustment—stays to size . . . this new Hex Wrench goes on easily, won't slip off—harder you pull, the tighter it grips . . . no more skinned knuckles or rounded nut shoulders! Narrow jaw for close quarters. Famous Pland heavy-duty design, guaranteed housing, comfort-grip handle. Three sizes for %" to 2" nuts. Make your work easier and faster—buy new Pland Hex Wrenches at your Supply House!



THREADED PIPE...It's Tight...It's Best...Costs Less!
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Western Meeting Reports

Here's what the Southern California chapter of SPHE wants:

Letters from people interested in packaging regarding suggested rules, sponsor award, entry requirements, etc.

Send them to **Harper Welton**, SPHE - SC., P.O. Box 22082, Los Angeles 22.

MHI traveling clinic . . .

THE MATERIAL HANDLING INSTITUTE traveling clinic will be held May 6 in Founders Hall, University of Southern Calif., Los Angeles; and on May 7 at the Hotel Claremont, Berkeley. Both meetings start at 10 a.m.

Program will be as follows:

10:30 a.m. Receiving and Shipping.

Panel—Harry Meister, Superintendent,
Special Products Engineering, Hyster
Co... S. E. Havens, District Manager,
Wright Hoist Div., American Chain and
Cable Co., Inc... O. E. Holler, Western District Manager, Faultless Caster
Corp. . Don Brickley, Vice President,
Motorola Communications & Electronics.

12:00 a.m. Luncheon.

1:30 p.m. Integrating Material Handling with Plant Facilities.

Panel—B. E. Phillips, General Manager, Industrial Truck Div., Clark Equipment Co... R. W. Roberts, Manager, District Sales, Whiting Corp. . . K. E. Forster, General Sales Manager, Barrett-Cravens Co... B. C. Coty, Vice President, Tri-State Engineering.

2:45 p.m. Break.

3:00 p.m. Purchase, Replacement, Repair, Maintenance Policy and Leasing vs. Purchase.

Panel—R. D. Jones, General Sales Manager, Automatic Transportation Co. . . L. P. Helbert, Manager Pacific Coast Div. American Monorail Co. . . R. J.

Muth, Field Sales Manager, Exide Industrial Div., Electric Storage Battery Co.

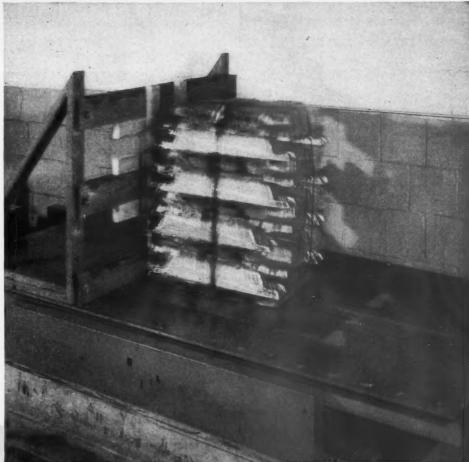
The clinic is co-sponsored by the Los Angeles and San Francisco chapters of the American Material Handling Society. Those interested in the Los Angeles area should contact **R. Semple**, M. E. Canfield Co., 419 East 3rd St.; Bay Area persons should contact **Ray J. Perin**, 575 Howard St., San Francisco.

SPHE vendors night ...

A VENDORS' NIGHT will be held by the Southern California chapter of SPHE May 4, 1959, at the Rodger Young Auditorium in Los Angeles.

Vendors wishing to display latest packaging materials and package suppliers are invited to contact H. L. Water, Exec. V.P. SPHE - SC., Radio Corporation of America, 11819 West Olympic Blvd., Los Angeles 64.

The meeting will start at 6:30 p.m.



Vibration test of ingot bundle. Signode vibrator handles up to 3 tons at accelerations over one G.



After test, equivalent to the effect of expected actual handling and transit, the bundle still looked like this.

Shake well before shipping!

A neat 2,300 pound bundle of aluminum ingots becomes 44 ingots trying desperately to go their separate ways...driven by the joggles and jolts of the vibration tester in the Signode Packaging Laboratory. The ingots hold together, though. They're bound to...by 51 cents worth of steel strapping pulled to about 3,000 pounds tension. We don't know of another material that could do this job at all...let alone at such low cost. And consider the savings of having Signode find out in advance and at no cost to you how to make your product behave in transit. This is one more way Signode helps make things cost less to handle, store, ship, and receive. For further information, talk to the Signode man near you, or write:



First in steel strapping

SIGNODE STEEL STRAPPING CO.

2615 North Western Avenue, Chicago 47, Illinois

Loveridge Road, Pittsburg, California • 659 East Gage Avenue, Los Angeles 1519 North West Irving Street, Portland 9 • 617 Paulsen Building, Spokane 1750 Occidental Avenue, Seattle 4

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The CF&I Image assures precision-made **Industrial Wire Cloth**

Symbol of dependable steel products for industry, the CF&I giant offers wire cloth for many uses . . . filter cloth, window and machinery guards, reinforcing materials, industrial processing and conveying components, decorative uses and many others.

Whatever the application, you get these advantages in CF&I Industrial Wire Cloth:

- Wide variety of sizes and metals—CF&I Industrial Wire Cloth is available from 6" openings down to 200 mesh. You can specify from a wide range of metals-steel, galvanized steel, stainless steel, aluminum, brass, copper, monel and other alloys.
- Tight weave; square, even mesh-CF&I's years of fabricating experience provide a strongly woven cloth that assures accuracy, long life and an attractive appearance.

The CF&I Image offers other dependable steel products: Coburn Overhead Conveying Systems, Sliding Door Hardware, Fire Door Hardware and Wissco Woven Wire Processing Belts.



For quick price and delivery information on any CF&I product, contact our nearest sales office.

INDUSTRIAL WIRE CLOTH THE COLORADO FUEL AND IRON CORPORATION

In the West: THE COLORADO FUEL AND IRON CORPORATION—Albuquerque - Amarillo - Billings - Boise - Butte - Denver - El Pase
Ft. Worth - Fresne - Houston - Lincole - Los Angeles - Oskland - Osklahoma City - Phoenix - Portland - Pueblo - Sacramento - Sait Lake City
San Francisco - San Leandro - Seattle - Spokane - Wichita

- He East: WICKWIRE SPENCER STEEL DIVISION - Allanta - Boston - Buffalo - Chicago - Detroit - New Orleans - New York - Philadelphia

GFAL OFFICE IN CANADA: Montreal . CANADIAN REPRESENTATIVES AT: Calgary . Edmonton . Vancouver . Winnipeg

. . . for more details, circle No. 16 on Reader Service Postcard See listing in Directory Section

WESTERNERS AT WORK ...

BJ Electronics, Borg-Warner Corp.

... appoints Frank Markun factory manager for the Santa Ana, Calif., firm. Formerly manager of production control and industrial engineering for three operating divisions of Byron Jackson Division of Borg-Warner, Markun was instrumental in planning that division's new oil tool manufac-turing plant in the Netherlands. Pre-vious experience includes eight years with the Euclid and Electromotive divisions of General Motors.

Gates Rubber Co.

... names Paul Taylor as chief engineer, with responsibility for machine and building design, maintenance, and development. Taylor has been chief supervisor of mechanical development at the Denver firm since last October. The firm has also appointed Edward G. Campbell, a 13-year employee, as superintendent of the belt manufacturing division, succeeding Delbert G. Peterson, transferred to Nashville, Tenn., where Gates is building a new plant. Campbell has been supervisor of the auditing department.

loseph T. Rverson & Son, Inc.



, reports among personnel changes the appointment of Melvin B. Monson as general manager of the company Los Angeles plant, succeeding Wayne D. Dukette, deceased. Monson has been general mana-ger of the Milwaukee plant since 1954. He joined Ryerson in Detroit in 1934,

transferred to Boston two years later and in 1950 moved to Chicago where he was successively assistant manager and manager of the Ryerson work order department. His transfer to Mil-waukee came in 1953.

Summers Gyroscope Co.

. selects Charles E. O'Hollaren as manager of operations planning and control in Santa Monica. O'Hollaren has been on the staff of Convair in various positions, most recently on a special project of streamlining procure-ment for the F-106 M-1 fire control system, involving analysis of test equipment requirements.

American Can Co.

American Can Co.

. . reports personnel changes in the Seattle and Denver areas. In Seattle, C. F. Sargent was named district sales manager, supervising selling activities in Alaska, Washington and northern Idaho. Formerly a sales representative, he joined Canco in 1950. Vincent X. Kel'y is now superintendent of the firm's container-making plant in Denver succeeding F. R. Grote Ir. transver, succeeding F. R. Grote, Ir., transferred to Canco's Chicago office. Kelly has been with the firm for 21 years, most recently Eastern area supervisor of quality control at the Canco Hudson plant in Jersey City, N. J.



You Can Forget Congested Area Handling Problems

... When the Electric End Control "DOCKER" Moves In!

Heavy loads, congested areas? No problem, if you have an Automatic Docker on the job. Because of its compact, stand-up, end-control design, the Docker has superior maneuverability. It can work easily in any type of congested area: on shipping docks, inside trailers or box cars, in narrow aisles. It lets you load, unload, move and stack with the speed and efficiency you want!

Small as it is, the Docker provides safety and convenience for the operator. Maximum stability is provided by 4-wheel suspension and low center of gravity. Superior productivity is made possible by fast lift and travel speeds. Available in capacities from 1500 lbs. to 4000 lbs.

Investigate the advantages the Docker offers you and learn how it can cut your materials handling costs to a minimum. Send for our informative, illustrated booklet. Just mail the coupon.

Advanced Materials Handling at Less Cost to You



AUTOMATIC TRANSPORTATION COMPANY

Industrial Trucks

Division of The Yale & Towns Manufacturing Cor 121 West 87th Street, Dept. D-9, Chicago 20, Illinois WORLD'S LARGEST EXCLUSIVE BUILDER OF ELECTRIC-DRIVEN INDUSTRIAL TRUCKS

Look at the PLUS Features Docker Gives You



LOW BACK STEP

Safer, less tiring; easier for operator to handle quick onand-off operations.



FULL VISIBILITY

Gives operator clear, unclutgrea for maximum safety.



SAFETY BRAKE CONTROL

Brake is on when foot is raised. Prevents costly accidents and



INCHING CONTROL

Foot-controlled inching hile load is raised.



NO GAS FUMES

Quiet-operating electric power means no toxic gas fumes or noise in congested areas where other employees are working.

0	Rush complete	information on	Automatic	DOCKER	oflbs.	capacity.
	Full details on	Tonne and samuel	namiant Dad	and Donales	Di	

Name	TitleTitle	
Firm Name		
Address		

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BELLOWS AIR MOTOR®



Packaging coffee is simplified by this Bellows Air Motor powered equipment.

...you can build special machines ...or modernize existing machines at low cost and quickly!

With parts normally available in every tool room, plus one or more Bellows Air Motors, and a little creative ingenuity, you can "spot modernize" scores of operations whose high cost whittles away at profits. The few illustrated here are typical of hundreds we can show you. The chances are good that no matter what you make, nor how you make it, this versatile air cylinder, with its built-in electrically controlled valve, can lend a mighty important helping hand to your cost reduction program.

THIS FREE "SPOT-A-MATION FILE" MAY SPARK AN IDEA IN YOUR MIND THAT CAN MEAN IMPORTANT COST SAVINGS

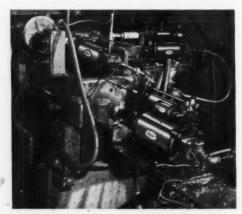


A note on your letterhead addressed to Dept. WI-459, The Bellows Company of California, Glendale 1, California will bring you basic data: wiring diagrams, installation details, equipment list, on a score of "everyday" operations almost every industry uses—and if you wish, the services of a Bellows Field Engineer, to help you adapt those ideas to your specific needs.

1313-B-2



Bellows Air Motors fill ice cream, add nuts and fudge, fold and seal the wrapper in this special machine.



Tail stock, tool bit, and cross-slide are moved by Bellows Air Motors in this lathe conversion.

The Bellows Co.

OF CALIFORNIA

926 Western Ave. Glendale 1, Calif.

A coating in COLORS that really sticks to new Galvanized, Aluminum and Terne Plate







RUST-OLEUM. GALVINOLEUM. COATINGS

Remember? If you didn't go over every square inch of new galvanized metal with a chemical solution before painting...chances are that the paint "peeled off" leaving you with a costly eye-sore!

The development of Galvinoleum Coatings by Rust-Oleum changes all this! Now...you simply brush Galvinoleum right over brand new or unpainted Galvanized, Aluminum, or Terne Plate...no etching... no weathering... and it lasts and lasts! No "peeling"

worries, no costly "headaches"... you have your choice of Red, Gray, Green, and Metallic! And you can use Rust-Oleum 575 Outside White, or any high-quality oil base house paint, over the Galvinoleum to match trim.

Pioneered, developed and field-tested by the Rust-Oleum Corporation — you have the assurance of a brand name backed by over thirty-five years of proved performance throughout industry. Try Galvinoleum...write for your illustrated Galvinoleum booklet with color charts.

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STOPS RUST!

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Prompt delivery from Industrial Distributor Stocks.



Rust-Oleum is distinctive as your own fingerprint. Accept no substitute.

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 With Color Charts.
- Free Test Sample:
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WESTERN INDUSTRY - April 1959

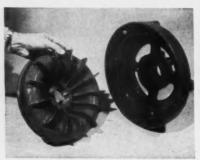
23

New design possibilities for West Coast Manufacturers with CORVEL[†] Fusion Bond Finishes

SIX new engineered resins for product finishing



CORVEL Cellulosic Finishes—wide variety of colors with high surface gloss; excellent retention of both color and gloss when exposed to water, salt spray, sunlight.



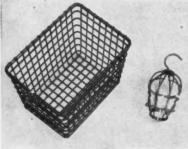
CORVEL Vinyl Finishes—durable with extreme toughness; resistant to corrosion and most chemicals. Available in a range of colors.



CORVEL Epoxy Finishes—excellent insulation at elevated temperatures; moisture, chemical and impact resistant. Provide a hard, smooth surface.



CORVEL Nylon Finishes—to impart the outstanding wear and low frictional qualities of nylon in coating metals and other base materials.



CORVEL Polyethylene Finishes—provide zero water absorption, excellent chemical resistance and electrical insulation.



CORVEL K-51 Penton* Finishes—exceptional chemical and wear resistance. K-51 Penton finishes can withstand temperatures from -40°F. to 250°F.

*Trademark of Hercules Powder Co.

- CORVEL finishes are specially processed dry powders, formulated for use in the patented** fluidized bed coating process. These finishes give you the following outstanding advantages:
- ★ Comparatively heavy finishes (normally 0.008" to 0.025") obtained by a single dipping treatment—without the use of solvents.
- * Finishes unmarred by sags, drips or bridging.
- ★ Uniformity in thickness, with excellent coverage of sharp edges, corners and projections.

Now, new custom coating facilities are available to West Coast manufacturers. Polymer's new plant, located in Santa Ana, can provide full production facilities for top quality coating of metal and other base materials.

Information on the advantages of CORVEL Fusion Bond Finishes for your products is available. Write today for a copy of the new CORVEL Bulletin, or call Mr. Daly at the plant—KImberly 5-1184.



THE POLYMER CORPORATION / Santa Ana, California

†Polymer Corporation trademark for finishing materials **U.S. Patent 2,844,489 and over 30 patents pending



. . . for more details, circle No. 20 on Reader Service Postcard



Load and unload in seconds!

When massive loads must be moved through congested yards . . . between branch plants . . . or to customers *miles* away . . . nothing does it as profitably as a *Gerlinger Material Carrier*. Your products are loaded, delivered and unloaded by one man without double handling . . . in one quick, cost-saving trip!

Want to see new material handling facts and figures reported by Gerlinger users? Ask for *Certified Job Studies On Carriers*—and new Gerlinger Specification Folder *GMC*. Write to Towmotor Corporation, Cleveland 10, Ohio or Gerlinger Carrier Co., Dallas, Oregon.*



TOWMOTOR

-GERINGER LEADERS FOR 40 YEARS IN BUILDING

*Gerlinger Carrier Co. is a subsidiary of Towmotor Corporation

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See listing in Directory Section

NEW DEVELOPMENTS

HIGH VACUUM PUMPS AND EQUIPMENT



LOWERED SILHOUETTE AND ADVANCED PERFORMANCE

Compact design is well illustrated in the new KINNEY KDH-65 single stage Pump shown at the left. This Pump, with 3 hp motor and free air displacement of 65 cfm attains ultimate pressures to 10 microns. This same Pump, with 5 hp motor, provides free air displacement of 80 cfm and attains the same ultimate pressure as the KDH-65. Product development of this sort marks the entire KINNEY Pump line, assuring for you ever higher standards of pumping economy and smooth performance.

THERMOCOUPLE GAGE **FEATURES NEW** COMPENSATED TUBE

This new gage spans the range from 3000 microns to 1 micron with accuracy of \pm 10% at mid-scale. It is available in 3 models covering 1 to 6 stations. No need for "matching" tubes . . . you can change a tube among a number of tubes in one circuit, as well as from circuit to circuit. Descriptive bulletin on request.



Complete your file of latest information on advanced KINNEY High Vacuum Equipment . . . Single Stage, Two Stage and Mechanical Booster
Pumps—Oil Diffusion Pumps—Cold Traps—Vacuum Valves—Valves and
Baffles — Packaged Pumping Systems — Power Units — Evaporators — Furnaces — Ovens — Crystal Growing and Purifying Units — Hermetic Sealers - Vacuum Accessories.

WRITE OR WIRE THE KINNEY OFFICE NEAREST YOU

King-Knight Company 360 Jefferson Street San Francisco 11, California

R. L. Dyer 903 Northern Life Boulevard Seattle 1, Washington

KINNEY MFG. DIVISION THE NEW YORK AIR BRAKE COMPANY

5058 VENICE BOULEVARD . LOS ANGELES . CALIFORNIA

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Yuba Consolidated Industries, Inc.



. announces that Monte Lindmoe has been named a vice president of the firm and director of sales for all its op-erating divisions and subsidiaries. Formerly executive vice president of Southwest Welding and Manufacturing Co., Lindmoe is nationally known in the steel fabrication

industry. He has been a resident of Pasadena for more than 25 years.

Cascade Manufacturing Co.

Cascade Manufacturing Co.
... names Raymond L. Howerton as sales manager of the Portland, Ore., firm, which makes hydraulic attachments for lift trucks, hydraulic cylinders and other components. An officer of the newly-formed Portland chapter, American Material Handling Society, he is also a past chapter president of the American Welding Society. He ioins the firm after many years exjoins the firm after many years ex-perience in marketing material handling equipment.

Easterday Supply Co.



selects Ed Roth to head its new industrial equipment department, which will specialize in plant housekeeping equipment and offer a consulting service for industrial plants. Roth joined the Bay Area firm after 16 years with Bockstanz Brothers Co., Detroit. Pre-viously in Cleve-

land, he shared in setting up the Lincoln American Cleaning Equipment

Metal Edge Industries

Retail Edge Industries

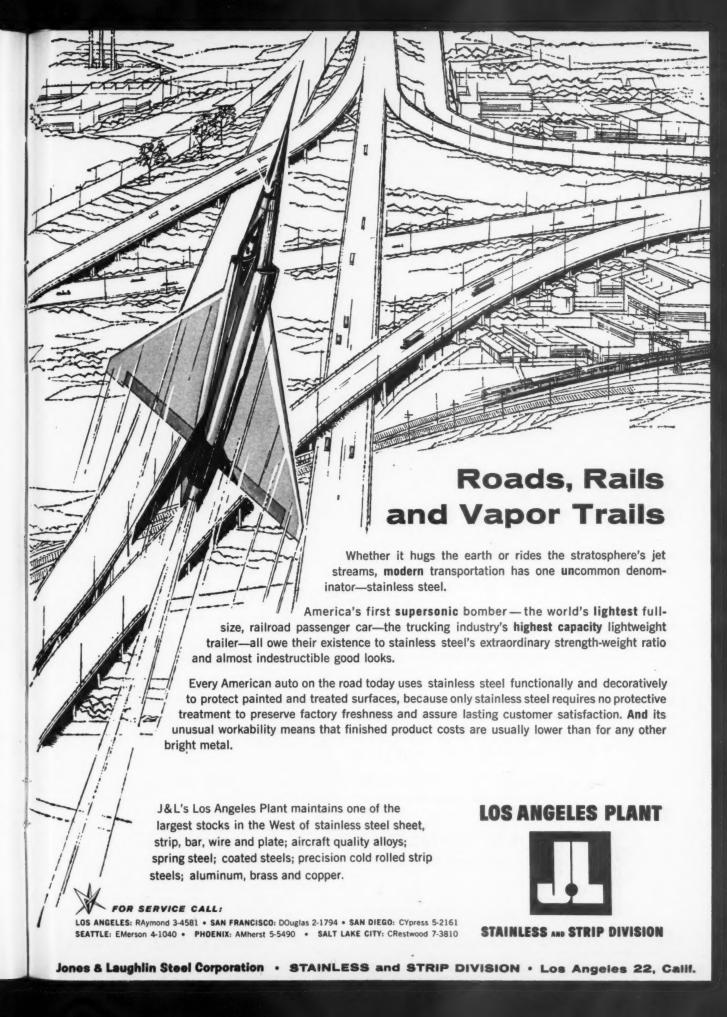
. . has a new packaging engineer,
Robert H. Woelfl, who lives in Los
Altos, Calif. Woelfl will serve all of
California north of Fresno, Monterey,
Madera and Mono counties, as well as
Metal Edge customers in Idaho, Montana, Oregon, Utah, Washington and
Wyoming. Before joining the New Jersey firm which manufactures all kinds
of boxes, hins and similar products. of boxes, bins and similar products, Woelfl was with the National Theatre Supply Co.

Enterprise Engine & Machinery Co.

. . . promotes Jack L. Roberts to be Los Angeles district manager, succeeding H. R. Hogaboom, who has retired. An 18-year man with Enterprise, Roberts has been a field sales engineer in that area, after working in diesel development, in the process machinery division as assistant manager and also in engine contract engineering.

Capewell Mfg. Co.
... announces that H. Craig Hill has been appointed manager of the Southern California and Arizona area. Headquartered at 1335 S. Hill St., Los Angeles, Hill will handle all sales of Capewell hack saws, band saws, hole saws, hammers and ground flat tool steel.

WESTERN INDUSTRY - April 1959





Alan Wood Super Diamond floor plate ...is easy to clean

Sweep it . . . hose it . . . mop it . . . at any angle, A. W. Super Diamond is easy to clean. No pockets to hold dirt or water . . . the unique design of this rugged floor plate lets water drain quickly in any direction.

A. W. Super Diamond is easy to fabricate, too . . . it can be sheared, welded, formed, and easily matched. The arrangement of the exclusive pattern allows you to bend it at any place. This is a heavy duty floor plate that will last for years . . . and provide a safe, non-skid footing.

For easy cleaning . . . for easy fabrication and installation . . . for long wear . . . specify A. W. Super Diamond. Write for Bulletin SD-N 6.



ALAN WOOD STEEL COMPANY CONSHOHOCKEN, PA.

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See listing in Directory Section

WESTERN INDUSTRY - April 1959



Taking guesswork out of packaging decisions



THESE TOP GRAPHIC DESIGNERS COULD BE WORKING ON YOUR PACKAGING PROJECTS

Say the word, and these outstanding package designers will give you their best efforts. This offer is part of a Fibreboard program designed to help you reach the best possible packaging decisions.

Today you can get help from experts in market analysis, structural design, graphic design, package testing, and equipment engineering just by calling Fibreboard. Qualified specialists in each of these fields will work with with you, your package consultant, or advertising agency whenever you like.

This new, broader concept of packaging service can help you find new ways to package your products better, more efficiently, at lower cost. Use it.

And once your packaging decision is made, let Fibreboard produce your folding cartons and shipping cases in the West's largest, most modern facilities.

Phone or write today for all the help you want!

PAPER PRODUCTS CORPORATION



San Francisco

. . . for more details, circle No. 25 on Reader Service Postcard See listing in Directory Section



use Airco's new Dip Transfer[†] CO₂ Process**

for ALL-POSITION WELDING OF STEEL IN ALL THICKNESSES

low costs · easy fit up · high speed · very low spatter · no warpage

In welding mild sheet steel manually, there's only one way to reduce costs and produce high quality welds at the same time. Airco Dip Transfer CO₂ Process Welding. Let's be specific:—

- The complete Airco Dip Transfer CO₂ package welds in all positions...manually!
- · Welds are hydrogen-free.
- Virtually ends warpage only low average currents are used for burn off.
- · Creates little or no spatter.
- · Handles typical steel joint fit ups.

- · No flux needed.
- Penetrates deeply critical for high quality.
- · Welds much faster than flux-based processes.
- Uses money-saving Pureco CO2 as shielding gas.
- The basic equipment welds all weldable metals. The Airco Dip Transfer CO₂ Process gives you consistently high quality welds at lower costs than any other process. For complete information, phone or write your nearest Air Reduction Representative. Ask for the new 24-page "AIRCOMATIC CO₂ WELDING" Catalog.

Visit our booth 521—April 7-8-9 at the Welding Show—International Amphitheatre, Chicago, Ill.

Pureco CO₂ is supplied by the Pure Carbonic Company, a division of Air Reduction Company, Incorporated. †Trademark

**Patent Applied For



AIR REDUCTION PACIFIC COMPANY

SAN FRANCISCO • LOS ANGELES • PORTLAND • SEATTLE Bakersfield • Burbank • Emeryville • Fresno • Inglewood Phoenix • Sacramento • San Diego • Stockton • Tacoma Western Headquarters for Oxygen, Acetylene and Other Gases . . . Carbide . . . Gas Welding and Cutting Machines, Apparatus and Supplies . . . Arc Welders, Electrodes and Accessories

Air Reduction Pacific Company is a division of Air Reduction Company, Incorporated. Principal products of other divisions include: PURECO — carbon dioxide — gaseous, welding grade CO₂, liquid, solid ("DRY-ICE") • OHIO — medical gases and hospital equipment • NATIONAL CARBIDE — pipeline acetylene and calcium carbide • AIRCO CHEMICAL — vinyl acetate monomer, vinyl stearate, methyl butynol, methyl pentynol, and other acetylenic chemicals • COLTON — polyvinyl-acetates,— alcohols, and other synthetic resins.

. . . for more details, circle No. 26 on Reader Service Postcard

CAN YOU MAKE THIS BEND IN YOUR ALUMINUM TUBING!

ILLUSTRATED ARE two typical parts made from two different aluminum alloys. Each tube is submitted to a sharp bend. The first photo is 6061-T6—an excellent alloy but misapplied in this application. Note the compression wrinkles on the smaller radius and fracture on the periphery. Now compare this with photo number 2 which very graphically illustrates the unusual bending qualities of the new Reynolds 5052 aluminum tubing—now carried in stock by Perry Kilsby!

Using the right aluminum alloy for specific applications is often the difference between success and failure. Using the right tubing—drawn or Holobar, rather than solid bar stock—can make a vast difference in cost. Perry Kilsby can give you metallurgical help plus knowledge gained only from practical experience to help you solve your aluminum fabricating problems. Call us today!

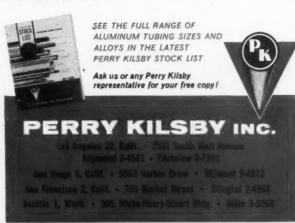
WHEN TO SELECT HOLOBAR VS. DRAWN TUBING

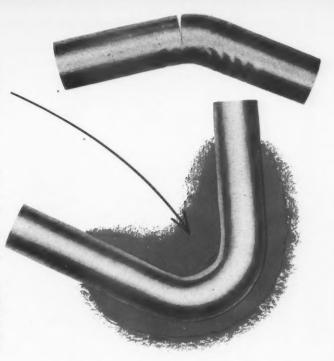
HOLOBAR is extruded aluminum tubing covering a range of diameters from 1" to 10" O.D.; wall thicknesses from .125" to 1.563". It is stocked in the alloys shown below. Tolerances are not as close as in drawn tubing. Holobar excells for machining cylindrical parts. The preformed hole eliminates drilling and boring time and the selection of thick walls provides ample stock for your parts requirements.

HOLOBAR ALLOYS IN STOCK: 2024-T4, 6061-T6, 7075-T6

DRAWN TUBES—Available in diameters from %" to 5%"; wall thicknesses from .020" to .375". Drawn tubing usually has a finer grain structure than extruded tubing due to cold working in the drawing dies. Tolerances are also held closer, both in wall thickness and diameter. Drawn tubing is preferable where thin wall tubing of small and nominal diameters is required. A primary use is in fluid transferring operations.

DRAWN TUBING IN STOCK: 2024-T3, 3003-H14, 3003-0 AGA, 5052-0, 6061-0, 6061-T6, 7075-T6.







Manufacturers everywhere are capitalizing on the hole in aluminum Holobar. This ready-made hole eliminates ma-

chining, saves waste of material, speeds parts production and cuts overall costs! Wall thicknesses accommodate a wide range of parts requirements.



QUICK COMPARISON OF ALUMINUM ALLOY CHARACTERISTICS

3003	Inexpensive alloy, excellent ductility for low strength requirements.
5052	Excellent ductility for difficult forming and for fin- ished parts requiring some strength.
6061	Comparatively inexpensive, reasonably strong, ductile and weldable. The "work-horse" for all around versa- tility and utility.
2024	Stronger and more machinable than 6061. Lower in ductility. Not recommended for welding.
7075	Strongest, most machinable alloy; not very ductile and not considered suitable for welding.

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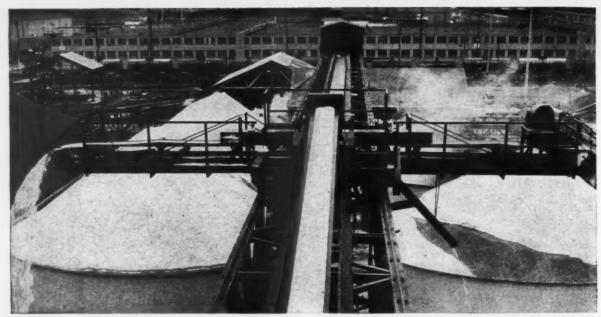
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BELT CONVEYOR is part of a Link-Belt distributing system operating at this chemical plant. Link-Belt builds industry's broadest range of belt conveyor idler types and sizes, including trippers, drives, terminal machinery, plus related products.

Why Link-Belt means lower costs...in

materials handling... processing... power transmission

These days, progressive firms are discovering that the most substantial way to reduce costs is to increase efficiency—in handling materials, in processing, in transmitting power. And Link-Belt in this field offers top operating economies plus the savings identified with one-source supply.

No matter what you need in conveyors and drives, it's part of the complete Link-Belt line . . . a unique all-inclusive service backed by unequalled application experience. Link-Belt will design, equip and erect an entire installation . . . and accept full responsibility for its successful operation.

For full information, call your nearest Link-Belt representative. Or write us direct. Catalogs on any Link-Belt product will be sent on request. Address: Dept. 459-WI,

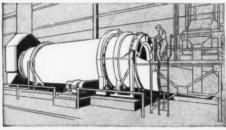


CONVEYORS AND DRIVES

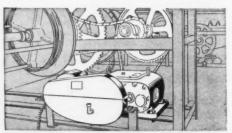
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MATERIALS HANDLING — Chain, screw, belt, oscillating and trolley conveyors; Trukveyor freight handling systems; bucket elevators; a complete line of feeders and stackers; and related machinery.



PROCESSING MACHINERY — Vibrating screens; dryers-coolers-roasters; icing equipment; machinery for specific needs in the foundry, sanitary engineering, mining, chemical, coal and many other industries.



POWER TRANSMISSION — Includes roller, silent, cast, combination, forged and fabricated chains plus sprockets; ball, roller, babbitted and bronze bearings; speed reducers; variable speed drives; couplings; clutches; collars; backstops; takeups.

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See listing in Directory Section

WESTERN INDUSTRY - April 1959

WESTERN M-H, PACKAGING

steps up to meet expanding production

EXPANDING WESTERN INDUSTRY needs fast-moving and efficient material handling equipment to keep pace with production . . .

EXPANDING WESTERN INDUSTRY needs new packaging methods and materials to protect new product lines...

THESE PAGES TELL HOW Western production men are saving time and money through new material handling and packaging techniques . . .

- 35 FLOOR HANDLING
- 38 MIDDLE HANDLING
- **40 OVERHEAD HANDLING**
- 43 PACKAGING
- 62 M-H MANUALS
- 77 BUYERS' DIRECTORY

AS PRODUCTION SOARS IN THE WEST

When a plant modernizes on one front, other departments must be brought up-to-date.

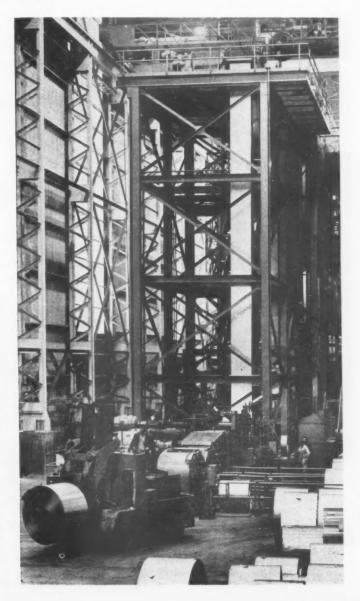
Kaiser Steel Corp. realized this when it began its \$214,000,000 Western expansion, completed recently. As Kaiser upped production, material hauling was improved, also.

Take the handling techniques used in conjunction with its new continuous annealer, the first in the West. This unit—which cleans and softens steel sheet and which will help to eventually step up tin plate production by 85%—required new handling techniques. The photo on the cover illustrates the new type coil handling truck used in this operation. With trucks like these material handling can keep pace with increased production.

And other methods of material handling are way up front at Kaiser.

(please turn the page)

COVER PHOTO—Coil-handling lift truck teams up with a continuous annealer, to play a part in stepping up tin plate production at Kaiser Steel's Fontana, Calif. plant. The annealer—first of its kind in the West—is more than nine stories tall. The annealer cleans and softens thin steel sheet in a continuous operation as a preparatory step in the manufacture of tin plate.



M-H keeps pace with production ...

(continued)

ity from 4,000 to 30,000 lb. handle material in the tin mill... the masonry department operates gasoline powered fork lifts, as do stores, and a variety of other de-

partments.

needed" basis.

These methods solve the problem common to steel yards—providing an adequate supply of steel at readily accessible points to avoid rolling mill delays.

Two distinct methods of oper-

ating mobile equipment are used:

(1) it is either operated by a spe-

cific department, or (2) assigned to a central pool and dispatched

to various departments on an "as

It was found at Kaiser that straddle carriers and large capacity fork lifts can best meet this requirement. In conjunction with the fork lifts, the carriers can pick up, position, lay down and stack material without the assistance of overhead cranes, and without being restricted to storage areas beneath a crane way.

When a central warehouse for finished continuous weld pipe and structural steel was put into operation, the entire production of the continuous weld pipe mill and the largest portion of the 29-in. structural mill was moved to this warehouse by straddle carrier.

By using straddle carriers under a central control system, a load can be moved from the producing department, even though the receiving department is not in a position to handle it at that particular time. This is accomplished by using inexpensive outdoor storage space sufficient to accommodate peak amounts of steel.

Outdoor storage economy

The economy of outdoor storage, even in areas where only a limited space is available, and the rapid movement of material by carrier, has allowed larger mill rollings and more flexible production schedules . . . which in turn results in better utilization of production facilities.

The end result has been to reduce costs and increase production and operating efficiency. But although straddle carriers and 13-ton fork lifts play such an important part in the handling system at Kaiser Steel, they alone are not responsible for all handling.

Electric powered fork lifts and split ram trucks ranging in capacA Trackmobile is assigned to the pipe and structural warehouse, and is used for moving railroad cars into the building for unloading; a scoop loader type tractor is used by the foundry for handling of sand and cleanup. Prior to use of this equipment, sand was handled by overhead crane with clam shell.

Small Payloader tractors are used on the open hearth charging floor for handling certain raw materials, and have proved most efficient because of their flexibility.

Motor scooters get there fast

Over 40 motor scooters are assigned to various operating and maintenance departments for transportation of men and small parts and operating supplies between jobs. Delay time on the job is reduced by having transportation available without hav-

ing to wait on a vehicle to arrive from the truck pool.

The plant railroad has about 90 miles of track, 500 switches and four interchange yards. The rolling stock is made up of 550 company-owned railroad cars and 375 buggies in the ingot mold and charging service. The railroad motive power consists of 17 diesel-electric engines ranging in capacity from 65 to 115 tons and all the locomotives are equipped with 2-way radios. In addition, a one-ton pickup truck equipped with 2-way radio is assigned to the railroad department for use by the yardmaster.

Yard handling equipment

Add to this 3½-yard shovels; lifting cranes up to 60-ton capacities; 6-yard clam shells, seven bulldozers, track type overhead loaders, graders, backhoes, and a truck pool packed with everything from dump trucks to semitractors and 35-ft. trailers . . . even a specially designed truck to carry ingots at 2400 deg. F. from soaking pits to the blooming mill when buggies are down for repair . . and you've got Kaiser Steel.

A very modern plant with very modern ideas, and one which is playing an increasingly important part in the rapid expansion of the West

EFFICIENT STORAGE AND HANDLING permit fast movement in the electric weld storage area. Here a straddle truck speeds material to the next operation.



FLOOR HANDLING

Pre-loading into vans . . . cutting high costs in bag handling . . . precise inching control . . . tractor shovel on the production line, etc.



PORTABLE ROLLER CONVEYOR units hold pallet-loads waiting for loading into van. Hydraulic hand pump raises or lowers conveyor.

Pre-loader solves van handling . . .

A "PRE-LOADER" is solving a loading problem at Continental Can Co. in Los Angeles.

The problem arose because semi-trailers could be loaded and unloaded faster than fork trucks could pick up the pallets coming in for storage or going out for shipment. Also, the fork truck might be busy elsewhere when a trailer arrived.

Mathews Conveyer Co. came up with the solution, called the "Pre-Loader." Units of portable roller conveyors were installed, large enough so that a full van load of pallets can be placed on the conveyor ahead of time. The pallets can then be manually pulled into the truck (equipped with

roller conveyor beds) with little

When shipments arrive, they can be placed on the conveyor in the same manner until the fork trucks remove them.

The "Pre-Loader" is about the same size as the largest semitrailer—40 ft. long by about 8 ft. wide. It was built to handle two rows of loaded pallets. The unit is equipped with casters for portability . . . but when in use it is supported on adjustable legs which can be raised or lowered eight to fourteen inches off the floor by means of a hydraulic hand pump. This adjustment is to accommodate various truckbed heights.

Special equipment for bag handling

HIGH OPERATING COSTS have been lowered in a flour storage warehouse by a system of loading that utilizes take-it or leave-it pallets and lift trucks equipped with multiple forks and push-off attachments.

General Mills, Inc., Vallejo, Calif., was faced with high costs and excessive time required in a hand stacking operation. But now one truck and attachments do the same job formerly requiring three men and a truck.

Here's how the operation works:

Packing area includes bag filling and sewing equipment and partitioned stacking stations for building unit loads. These stations are the width of 48 x 36-in. take-it or leave-it pallets and are panelled on two sides for load alignment.

Bags of flour are stacked 3 per layer, 7 high for a total of 2,100 lb.; mill run is stacked 5 high at 1,500 lb. per load. A sheet of chipboard is placed between pallet and load to protect the bags and provide an easy sliding surface. Loads can be picked up with or without the pallet.

The Hyster 40 lift truck is equipped with a Cascade Load Push and 5 polished and tapered forks 3 in. wide x 42 in. long.

Loads for stock are picked up on pallets, moved to storage and stacked two loads high. Loads remain on pallets.

For direct car loading, the load is picked up by the multiple forks without using the pallet. The truck moves into the car and stows the load in its proper place, either on the floor or two high. The Load Push is used to exert



UNIT LOADS are built on take-it-or-leave-it pallets. For direct car loading, load is picked up without pallet.

pressure against the load as the forks are withdrawn, leaving the load tightly stowed for shipment.

A similar procedure is followed for loading cars and trucks from storage. Only the unit load is picked up, leaving the pallet. Movement and stowing are same as above. No extra handling or restacking is required.

In this operation, the Hyster lift truck handles an average of 200 tons per shift. It can load a car with 40 tons (800 bags) in 1½ hours including pick-up, travel, and stowing.

In compliance with company safety rules, the truck is equipped with an overhead guard. To provide overhead clearance for entering truck and trailer vans, the overhead guard has been cut down to provide an overall height of 77 in. The driver's seat has been recessed in the hood and a thinner seat pad provided to compensate for the lowered guard. Seat height is reduced a total of $3\frac{1}{4}$ in.

The use of LP-Gas, a recent conversion, has resulted in a substantial saving in fuel and oil. positive torque of the hydraulic motors results in a 20% average increase of gradeability.

(2) No accidental creeping — the foot control pedal is spring loaded so that it automatically returns to neutral when the operator's foot is removed. This prevents any possibility of accidental creeping while the engine is idling.

(3) Freedom from downtime there are no gripping friction surfaces (as in clutches) to wear, as all clutching devices and directional selectors have been completely eliminated. All high pressure flexible lines are of double wire braid construction capable of withstanding any pressure delivered, and all high pressure fit-tings are of the "O" ring type to insure maximum tightness of connections and systems. The hydraulic oil is continuously filtered by a replaceable micronic type oil filter. Thus, many maintenance problems are eliminated.

(4) Superior braking control—the degree of braking control required for maneuvering and positioning may be accomplished with the drive control pedal, with no possible injury to the drive mechanism. This eliminates constant switching of the operator's right foot from the accelerator. However, a brake pedal is installed which operates traditional service and parking brakes which can be used in regular operation.

These and other features will help Hampton move unit loads of 4 x 8-ft, sheets of plywood in unit

Precision moving for plywood . . .

FOR MOVING PLYWOOD LOADS from dryers into the warehouse or into box cars, the Hampton Plywood Co., Redcrest, Calif., sought a fork truck that would be ideal for short runs and would have good inching control.

Many conventional models would do the trick. But operator fatigue was too high and inching was jerky.

Then Hampton settled on a truck that—with a simple heel and toe movement—provides instant power through a hydrostatic drive. This drive eliminates all shifting, freeing the operator to control the lifting and tilting levers with one hand while steering with the other.

The truck has no clutch . . . no transmission . . . no universal joint

or differential . . . and no drive

This freedom of action and smooth operation of the truck reduces driver fatigue considerably. Also, the simple construction of the drive guards against downtime

And, the hydraulic movement assures free-flowing inching movement in both forward and reverse. There is no time lag between the pedal action and the truck movement — there is immediate response to directional changes.

Other advantages Hampton found with this truck include:

(1) Improved gradeability—with the new drive, gradeability with rated load is greatly improved. The immediate action and

FLOOR PEDAL provides precise inching with heel-toe motion.



loads of 3,800 lb. Figures are not yet available, but Hampton feels that the elimination of driver fatigue, the accurate and smooth inching, and instantaneous speed in either direction will account for much time and money saving.

The truck mentioned above is the Towmotor Towmostatic-drive truck, available in 4 and 5,000-lb. capacity. All standard attachments are available on Towmostatic trucks. New drive was announced by Towmotor late last year. Since then trucks of this type have been doing man-sized jobs in many plants, including the Kieckhefer Container Corp. in Yakima, Wash. and the Pepsi-Cola company in Denver.

A tractor shovel in production work

A TRACTOR SHOVEL is forming a vital link in an unusual metalworking operation—the sweating of aluminum from scrapped aircraft. This operation is being performed at the Stockton, Calif., yard of the Learner Co.

The entire "sweating operation" is fully dependent on a Model 104 Trojan tractor shovel. It's through the use of this machine that the Learner Co. is able to feed whole sections of airplanes into the sweating furnace.

For this operation, the standard 1½-yard bucket of the tractor shovel is replaced with a fork lift attachment. The airplane sections are tied by wire to the forks, and extend directly out in front of the machine. The average length of these sections is 23 ft. and they weigh between 3,000 and 3,500 lbs.

The Trojan tractor shovel can efficiently handle these cumbersome loads because of its long wheel base, 7 ft., 8 in., the longest of any tractor shovel of comparable size.

At the conclusion of the sweating operation, a rake attachment, 18 ft. long, replaces the forks for the purpose of agitating the remaining residues in the furnace, so that all possible aluminum attachments will be removed. When this is completed, metals such as iron, copper, brass and lead are removed from the furnace by means of the rake-tractor shovel attachment.

LONG WHEEL BASE enables tractor shovel to maintain perfect balance even though plane extends 23 ft. in front of machine.

The hydraulic system of the operating arms of the tractor shovel also permit smaller materials to be loaded into skips and then fed into the furnace. Finally, the tractor shovel is used to remove the palletized finished products, and actually loads material into railroad cars and trucks for shipment.

All the metals regained through the sweating process are disposed of on the metals markets. The aluminum ingots are sold to secondary smelters throughout the United States and Canada, and the metal is returned to usefulness as kitchenware, automobile pistons, awnings and countless other products.

The success of the Learner sweating operation is to a large



extent due to the far sightedness of the management. They are using a conventional earth moving unit, the Trojan tractor shovel, for an unconventional materials handling problem — and it has supplied, at minimum cost, the mobility, power and speed necessary to provide an uninterrupted flow of material into the sweating furnace.

Special dolly moves cylinders . . .

HOW TO HANDLE 3,600-lb. propellant cylinders measuring 7 ft. x 30 in. quickly, easily—and using only one man?

This question faced engineers at Avon Products Inc., Pasadena, Calif., when they adopted freon and genetron type propellants in the aerosol filling of containers for cosmetics.

It was important that the cylinders not only be moved easily, but that provisions be made to insure that the cylinders wouldn't roll off the carrying vehicle . . . and that the wheels of the unit carrying the cylinders be so constructed that they were not harsh on floor surfaces.

Consultation with the Colson Equipment & Supply Co. in Los Angeles resulted in construction of a cylinder dolly. Made of steel, the frame measures 34 x 60 in. and it rides on 8-in. casters. At each corner of the frame are 8-in. wheels designed to cradle the cylinders in such a way that they can easily be revolved without lifting the heavy units from the dolly.

Rotation was necessary because freon *12, the propellant used by Avon Products, had to be handled at minus 40-deg. F to make sure it would remain in a liquid state. Freon boils at minus 21.6 deg. F. One end of the cylinder is equipped with two valves, one on too when the cylinder is in a hori-

zontal position, and the other directly below it.

Keeping the freon temperature below its boiling point allows liquid freon to be pumped out of the lower valve, passed through a refrigeration coil, injected into waiting containers, and the surplus returned to await reuse through the top valve of the cy-

It's advantageous if the cylinder can be rotated periodically so that upper and lower valve functions can be changed. This is where the wheel supports on the four corners of the Colson dolly play a vital part. The operator simply turns the cylinder right on the dolly — instead of having to laboriously take the unit off, turn it around, and replace it in a reverted position.

One other thing—the wheels of the dolly are of phonelic composition which allows long-lasting wear with minimum of floor damage, which is exactly what Avon Products Inc. was looking for.

DOLLY FOR CYLINDERS – Note wheels on top for easy rolling when cylinder must be inverted.



MIDDLE HANDLING

Wheel conveyors for controlled handling . . . automatic pipe handling . . . loading lumber onto conveyors . . . pallet elevators on production line . . .

Controlled handling on wheels . . .

CONTROLLED HANDLING is important in the manufacture of furniture . . . parts must be finished skillfully without stopping the production flow with bottlenecks.

The Sierra Furniture Manufacturing Co. in Los Angeles solved its handling problem by installing an integrated system of conveyors, with hydraulic lifts and branch conveyors feeding into the main production line.

Main part of the equipment, installed by the A. J. Bayer Co., is matching sections and curves of specially designed Wheelway conveyors. Designed to combine strength, durability and portability into lightweight sections, standard length of sections is 10 ft.

Each section contains two channels, (they are available in up to five channels if weight of load requires better stressing,) and are equipped with 2-in. ball bearing skate wheels. The channels are arranged to provide a staggered wheel pattern, and each section

45-DEG. CURVED CONVEYOR spurs on main production line. Note free-swivel casters between straight conveyor sections.



is equipped with quick-attaching couplings.

A feature worth noting is the inverted channel which protects the wheels. Only the carrying surface is exposed and dirt or material cannot accumulate to slow up or clog the wheels. In addition, each wheel has its own 1/4-in. shaft and the close fit of the wheel between the sides of the channel minimizes bending stresses under the most severe loads. The overall impression created by the handling system at the Sierra Furniture Mfg. Co. is of a skillfully designed narrow gage railwaycomplete with points to allow right angle crossing of two conveyors and 45 deg. feed-ins to main production lines.

Here's how the "points" on the system work:

Where four sections of Wheelway conveyors meet at right angles, sections have been joined by free-swinging casters in place of the fixed 2-in. ball-bearing skate wheels in the conveyors.

As the pallet of furniture swings into the crossing, the casters swivel to accommodate its direction of flow and pass it easily over to the conveyor stand for which it was intended. Conversely, the casters swivel in an opposite direction to accommodate units moving in the opposite direction.

The advantage of "point" crossings like these is in space saving.

Another unique feature of the system is the center wheel fixed to the bottom of each pallet which is fitted into twin guide rails centered between the channels of the conveyor. It's purpose is to guide the pallet of furniture in the required direction, while cables attached to the guide rails control the flow rate by use of foot-operated controls close to the operator.



AUTOMATIC PIPE HANDLING is possible because of this conveyor

Automatic handling in pipe production

SUBSTANTIAL SAVINGS have been achieved by the installation of an almost completely automatic pipe handling system at the Alabama Pipe Co., South Gate, Calif.

With a system installed by Jervis B. Webb Co., the sequence of operation is as follows:

Pipe rolls out of a Wheelabrator onto pusher rails of an inspection conveyor at a constant speed of one every 10 seconds. The inspection conveyor pushes the pipe at 12-in. centers at constant speeds of 6 fpm. When the pipe reaches the head end of the conveyor, it rolls by gravity directly onto weight cells.

Located here is a four-button control panel; one button to select O. K. pipe, one to select reject pipe and a stop/start button for inspection and scrap conveyors. When the pipe rolls into the

weight cells, operator pushes either O. K. or scrap button. By pushing the former, pipe is automatically ejected from the weight cell and flows by gravity onto the

If the upender happens not to be in load position, a cam-operated stop will hold the pipe until the upender returns to a loading position, whereupon the cam stop will hold the pipe until the upender returns to a loading position. The cam stop is then depressed, allowing the pipe to roll into the upender, and when the next conveyor hook arrives, the upender will be actuated, moving the pipe to a vertical position for pick-up.

If the reject button is pressed, pipe is ejected from the weight cells. Because the powered gate above the scrap conveyor is open, the pipe will fall onto the scrap conveyor and be carried to the end of the conveyor-where the pipe will be pushed onto a tilted plate and discharged to one side

of the conveyor.

Operation of the air ejector out

of the weight cells is energized by a hook on the overhead conveyor contacting a limit switch. The operator pushing the selection button merely sets up the circuit and when the next overhead hook contacts the switch the ejector is operated. The overhead hook also actuates the upender providing a pipe is in the upender contacting a limit switch.

The Baldwin SR-4 load cell is

worth special note.

It translates changes in force or weight into changes in voltage. The sensitive element of the cell is a high-strength metal column to which are bonded special resistance-wire strain gages.

These gages are electrically connected to form a balanced Wheatstone bridge. A constant voltage is applied across opposite corners of the bridge so that a change in force on the cell, changing the resistance of the gages, will produce a change in the output voltage. This change is measured by an indicator which may be calibrated in units of force or

weight.

Pallet elevator for unitizing

A PALLET ELEVATOR that unitizes canned goods directly from the production line is saving packaging, handling and shipping costs at Thornton Canning Co., Thornton, Calif.

The elevator forms unit loads of 61 cases of No. 10 cans as they come from the production line by gravity conveyor. This pallet elevator can form 6 unit loads (366 cases) an hour - considerably more than with the old hand-

packing method.

Here's how the elevator works: It is controlled by a foot button and is raised to the level of the conveyor line where a plywood pallet is placed on it. Cans then feed onto it directly from the conveyor line. A metal platform at the end keeps the cans from jamming and allows the operator time to arrange cans on the pallet.

Loading lumber onto conveyors...

LOADING LUMBER onto elevated conveyor belts can be, like every stockpiling job, a tiring task for a workman. Fatigue factors are greatest at the beginning and end, when a too-low or toohigh stock pile requires stooping, stretching and straining.

The Jamleson Division of Arrow Mill Co., Los Angeles, increased worker output through the installation of a roller conveyor mounted on top of a lift platform. Conveyors move the loads horizontally, while the platform OiLIFTS move loads vertically. The unit is built by the Globe Hoist Co.

Stacks of lumber are moved onto the platform. Single boards

are fed off the top of the pile on to small roller sections and into cut-off saws. Two 2-post lifts comprise this installation. Action of the two cylinders is synchronized by rack-and-pinion, while the platform itself measures 14 x 4-ft. wide (there are 10 ft. between centers of plungers.)

As the load gradually gets lower, the operator, by simply touching a convenient control button, can raise the remaining timber. Similarly, as the platform at rest is almost flush with floor level, it is easy for the operator to get at the top layer of boards without having to stretch, as is so often the case in less efficient operations.



When the pallet is full it is covered with a fibreboard tray and lowered sufficiently on the elevator to receive another layer of cans and another fibreboard tray.

This is repeated eight times until the unitized load rests at the bottom of the elevator on a roller conveyor. It should be noted that on the fourth layer, two aisles are left to allow for the forks of a lift

Then a lift truck can pick up the entire strapped load and carry it to a waiting train or truck.

The pallet elevator equipment was developed by the Perin Co., Inc., San Francisco, and built by the Revolvator Co. of North Bergen, New Jersey.



OVERHEAD HANDLING

Unique belt tripper solves space problem . . . crane scale cuts handling costs...semi-automatic tongs save time . . . conveying small parts. . .

Unique belt conveyor tripper ...

A UNIQUE SUSPENDED belt conveyor tripper solved a space problem for Kennecott Copper Corp. in its coal handling system at Magna, Utah.

Requirements called for a semiautomatic tripper that could be fully automated at a future date. The specifications warned about low headroom conditions. Two detachable tripper chutes which could be removed from the tripper when it had to pass a narrow passage next to an elevator shaft were also required (see Fig. 1).

General Conveyor, Inc., of San Francisco tackled this job. Here's how they solved it:

The 350 TPH coal handling sys-

tem in this particular instance was to be a turn-key job, comprising the furnishing and erection of a coal car unloading shed, complete with car shaker, car hopper, and Jeffrey vibrating feeders. The feeder would feed coal to a reversing distributing conveyor, routing coal to either a stock-piling reclaiming system or directly to a right-angle inclined conveyor to feed the bunker conveyor, carrying the belt tripper.

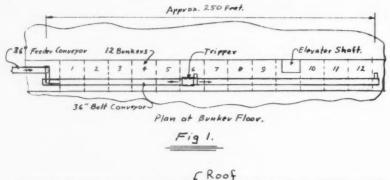
It bothered General Conveyor engineers that a man had to remove a heavy chute section from the tripper when the three last bunkers had to be served.

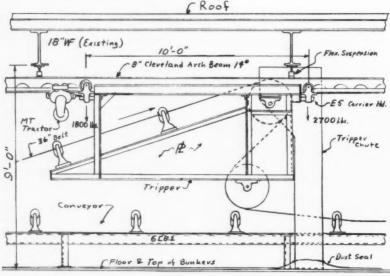
The headroom was 9 ft. and the maximum clearance width was 7 ft. 3 in., which didn't give much leeway. All methods were tried to make a standard, rail-supported tripper work, but the main problem was always the chute. The engineers eliminated the necessity for two chutes, but even so, a man would have to be present at the elevator shaft to raise the lower section of the chute which was to be hinged, in order to pass that shaft.

The solution was a logical and natural one: why not suspend the tripper on a Cleveland Tramrail system? As soon as this was suggested, it became apparent that this was the solution—and the design described in Figures 2 and 3

was developed.

Two Cleveland Tramrail 8 in. arch beams were to be flexibly suspended from existing 18 in. WF beams and to run parallel along the whole length of the conveyor at 4 ft. 10 in. centers. A fairly light tripper frame which was suspended from the arch beams by four Cleveland Type ES carrier heads could then be designed. This complete unit would then be driven by two Cleveland Type MT tractors, each containing an electric motor drive with





spring loaded traction wheels, which will lock the tripper through a magnetic brake to the rails when the desired loading position has been reached.

The two electric motors on the tractors are inter-connected through a reactor panel. This accomplishes controlled acceleration of the tripper at startup and also distributes the power to each motor in such a manner that one motor cannot run faster than the other, thus eliminating skewing or hunting of the tripper when it is in motion. The control current and main power is brought in to the tripper through Cleveland Tramrail's Safpowrbars via a patented collector shoe. These current carriers run the whole length of the system.

Although the tripper, as now being furnished, is to be pendant controlled via pushbuttons, this type of unit lends itself very readily to automatic functions. The design was carried out so that automation can be carried out to the fullest extent in the future without excessive expense for the owner.

By suspending the tripper, the chute could be designed in such a way that the tripper could pass the elevator shaft without having the chute removed. This was possible mainly because the chute would not have to pass over the rails mounted on the side of the conveyor frames, as is usually the case with traveling belt conveyor trippers.

As is apparent from Figure 2, showing a side view of the tripper, and Figure 3, showing the tripper coming towards you, General Conveyor engineers did not have much room to work with and the clearances between the lower tripper pulley and the belt idlers and between the chute and the side of the conveyor are pretty

This tripper will be in operation during June of this year.



3,000-LB. paper roll is lifted easily with this crane scale.

Crane scale cuts costs, handling time

MINIMUM SAVINGS OF 30% in material handling costs—plus a 20% speed-up in production, are worth noting.

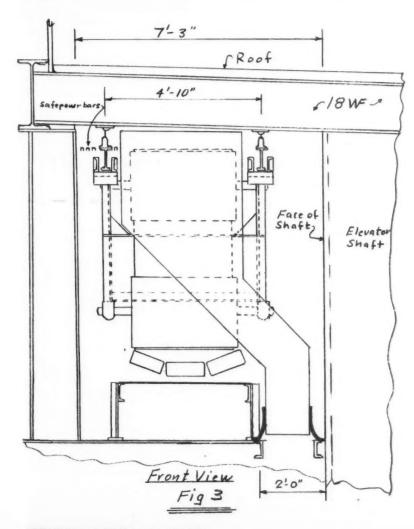
Here are the facts:

The Publisher's Paper Co., Oregon City, Ore., was unhappy with the awkward way in which rolls of paper weighing an average of 3,000 lb. were being handled between paper working machines and slitters.

Rolls coming off the paper working machine were placed on dollies, and moved several hundred feet through the plant to a stationary scale. Several men were required to move the rolls from the dolly onto the scale, and after weighing; the rolls had to be manhandled back onto the dollies and transported back through the plant to the paper slitting machines, situated close to the paper working units.

Key to the savings in handling and the speed-up in production was the installation of a Sensater crane scale, manufactured by the Martin-Decker Corp., Long Beach, Calif.

The Sensater differs from other hydraulic-pressure diaphragm crane scales in that it moves with its backing plate to give a constant, piston-like stroke, displacing as much fluid as a piston load cell. In addition, it weighs only about half as much as other crane



scales of comparable capacities (up to 20,000 lb.,) and requires less headroom (max. of 21¼ in.) Use of the Sensater at The Publisher's Paper Co., resulted in elimination of the stationary weighing station—and the labor required previously to transport the heavy rolls from paper working units, to scale, and back again.

Because the diaphragm works without surface friction, monthly maintenance costs were cut, and the full 360-deg. dial, with its entire dial circumference calibrated, made for easy reading. One other thing—there's a manual adjustment which zeroes-out boxes, baskets, hooks and chains to give instant weight readings directly applicable to loads being handled.

How Semi-automatic tongs saved 150 hours

SEMI-AUTOMATIC TONGS saved approximately 150 hours while pulling sheet steel piling after construction of the foundation for the Crown-Zellerbach building in San Francisco.

The tongs save about 15 min. time on each of 600 piles, compared with the traditional method. Formerly, four 3-in. holes were burned in the top of each pile and pins were inserted so a wire sling could be attached. In addition to taking time, this made it necessary to scrap one lineal foot of each pile.

However, the tongs, designed and manufactured by Heppenstall Co., grip a pile firmly and pull it safely, with no need for boring holes or inserting hooks. Lowered over a pile with their jaws locked

JAWS OF TONGS are shaped to present maximum bearing surface.



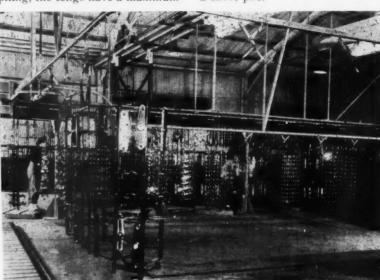
open, the tongs are ready to pull as soon as the operator allows a bit of slack in the line, causing the jaws to close. After the load is safely delivered, a workman positions a link that holds the jaws open. The tongs are then ready for lifting another load.

The tongs were designed for a pulling capacity of 100,000 lb. Intended for use with ½-in, thick piling, the tongs have a maximum

jaw opening of 6 in.

The leverage of the tongs is such that they get a tighter grip as the pull is increased. The jaws are shaped to present a maximum bearing surface. For additional pulling power, each jaw has 15 teeth that help grip the sheet steel firmly, but without damage.

The tongs serve as a natural plumb and center themselves over a sheet pile.



PARTS ON OVERHEAD CONVEYOR in plating department. A second conveyor transports them through automatic plating.

Automatic conveying small parts...

COST OF MOVING SMALL PARTS from one operation to another too high? Harcraft Brass, Torrance, Calif., thought it was in the moving of intricate and odd-shaped plumbing fixtures.

An automation approach was decided upon—with the selection of a versatile overhead conveyor system.

Working with engineers of Chainveyor Corp., Harcraft planned a system that moves products efficiently throughout the plant via three overhead conveyors. One conveyor transports parts through polishing and washing, the second through plating, and the third through inspection.

The first loop carries wire baskets of parts to machine operators at work level. After parts in the baskets are polished, the container is replaced on the conveyor.

Next, the conveyor automatically moves the parts through a washing machine which removes all dirt, grit and polish particles. Emerging from the washing machine, the parts proceed to the plating room.

Upon entering the plating room the parts are removed from the conveyor, inspected, regrouped according to item and racked for plating. A round - table type of rack is used to regroup the parts. These racks are then placed on the second Chainveyor unit which transports the parts to a completely automatic plating machine.

After plating has been completed, the parts are placed on a third overhead conveyor and moved to a final inspection station where they are unracked ready for shipping. Empty racks remain on the conveyor and travel through a chrome strip and water rinse cycle which removes all clinging plating solution and returns to the starting point for reloading.

Improving packaging and lowering rosis ... packaging delicate instruments . . . use of gummod and masking tapo . . . streamlining with strapping . . .

Up quality ... down with costs ...

By Ken Tompkins
Packaging Engineer
Ampex Corp.
Redwood City, Calif.

HOW CAN WE improve our packaging...lower costs? That's what all packaging engineers need to know. We feel that we have had a measure of success along these lines; let's take a look at how we go about it.

Let's say we are about to market a new product or part. Our Process Engineering Dept. usually advises us of new products or items to be manufactured or marketed. We ask for certain information from them, and possibly others, to assist us in developing the proper package for the product.

We want to know the dimensions, the weight of the item, the prime cost and the selling price, the anticipated rate of sale or delivery, the general market area (whether domestic, overseas, or military) and any special or peculiar characteristics of design.

We crank all these bits of information into the pot and from the result we decide what the tentative package design will be. We usually consult with suppliers of various packaging materials or containers to discuss prices and availability before we finalize our package design.

If we feel that our package design needs proving out before we make a final decision we will have samples made by our suppliers. With these we will make a pilot pack, subject it to the appropriate testing and evaluate it.

Once sure of our design we make blueprint drawings of the package. The drawings are intended to serve two main purposes. First, they provide necessary specifications for our Purchasing Department to use in obtaining quotations for manufacture from competitive suppliers.

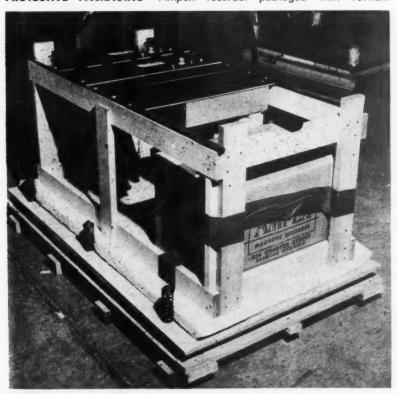
Second, the same drawing will show the method to be used in packing the product in the package. This is for use by our packing or shipping sections.

When we develop a new pack—whether simple or complex—and develop drawings for it, we supply copies of each drawing to several different activities within our company. Purchasing department usually gets two copies of each drawing . . shipping gets one copy of each . . . material control gets two copies of each . . . stores gets one copy and process engineering gets a copy. If the pack is likely to be used in other activities within the company we furnish copies for those activities.

We assign numbers to drawings and we distinguish between three categories of package from a general use standpoint. These categories are: 1) domestic; 2) export; 3) inter or intra plant.

Our numbering system conforms to these three categories and we index each category showing the number, use of the package, type package (carton or crate, etc.) size, and any specific information required.

PROTECTIVE PACKAGING - Ampex recorder packaged with Tufflex.



We have prepared and provided a packing catalog containing the indexes and drawings to the various departments or sections concerned at Ampex. We keep these up to date by distributing any changes or new issues to the holders of these catalogs.

When we prepare a drawing for a new package we also prepare one other document. This is what we call a traveling requisition card - a Kardex card, actually. We put the following information on this card: the drawing or package number, type of container or package, uses, known sources of supply, and a listing of any special components involved.

This card is furnished to Material Control section along with the two copies of the drawing they get. They add information on order quantity, re-order point, delivery date, etc., and route the card with one drawing to the Purchase department. Purchase processes this requisition in much the same manner as any other

requisition.

The card is returned to Material Control by Purchasing with notations as to prices, delivery date promised, and purchase order number. Material Control records this information and files the card until the re-order point is reached, at which time it is again sent to Purchasing with another copy of the drawing. If any changes are made to the package design we issue a revised drawing to Material Control. This is to assure our buying to the current specifica-

Although we are in no way administratively connected to the packaging or shipping sections we work directly with personnel of those sections to obtain proper use of the pack and to be aware of any problems which may arise in its use.

We record our packaging cost per product item and maintain this in current status. We record both material and labor. We are called upon from time to time by our sales department to furnish them estimates of packaging costs for quotation proposals.

Now about the opportunities. What do we mean by that? Well, packaging is an expense and it does not do a thing for the product. Our Engineering department endeavors to design the best product which can be economically produced for sale. Our production people's main interest is to manufacture this product with the lowest practical cost, and our sales people are working hard to sell the product at the best price to us.

We want to help too . . . and the way we can do this is to work for improvements in packaging which will allow us to reduce costs yet maintain safety of the item in

shipment.

Also as a secondary item, and incidentally a purely selfish one, we can make ourselves look good if we succeed in this. We spend a substantial amount annually on packaging materials alone. In addition to this there is the labor cost. This, we feel, represents a pretty fertile field for cost reduction.

I would like to give you some examples of cost reduction we've been able to achieve recently. Until recently all our large machines were shipped in wooden crates of some 12 different sizes.

All these crates had a floating base on which the machines rested and were anchored. There was free space around the sides, ends, and top of the machine. The floating base assembly consists of: 1) a rigid base, usually of plywood nailed on skids; 2) a cushioning material usually of polyurethane foam placed on top of the rigid base, and; 3) another piece of plywood placed on top of the foam.

The machine was fastened to the top piece of plywood, so the foam would absorb downward shock. This is fine as long as the pack stays right side up. But since we can't be sure of that, we had to some way anchor the top piece of plywood to the rigid baseyet maintain the floating feature. and also provide for end shock, side shock, and upward shock.

We chose to use a method involving carriage bolts, coiled wire springs, nuts and washers. This was fine; we now had it. The floater would move downwards, sideways or endways, depending upon where the shock came from. Also if the pack was turned over on its side, top, or end, the machine still floated; held in place by bolts, springs, washers, and nuts. We laid in a good supply of different size springs, bolts. washers and nuts.

We did have to allow room for the springs along each side of the machine. Also, the floating plywood had to be thick enough so that it would not curl when we steel-strapped the machine to it. We discovered the machine would shift ever so slightly even though steel strapped, causing the coiled spring to scratch the machineso we had to cover the springs. And we had to drill the floater and base to receive the bolts, and even the smaller bases required two men to assemble them.

The more we looked at this the less we liked it. We began to look into cementing the floater to the foam and the foam to the rigid base. Our machines were heavy, could cement be found that would hold and would the foam hold? After experimenting with dummy loads, we found a cement and a



THE AUTHOR-Ken Tompkins kneels beside package with floating base. The base absorbs all movement, the contents moving like jello in a dish. Mr. Tompkins is packaging engineer of the Instruments Div. at Ampex.



SMALL PARTS-In packaging small parts, pre-cut pads of Tufflex are used. Tufflex is a cushioning material that protects delicate instruments from shock and vibration.

foam that would hold.

We had pilot samples made and shipped them all over the United States, subjecting them to about everything in the way of handling. They came through in good shape. Good, we said. We can eliminate the bolts and springs.

Then we began to see other possibilities. The crate could be made narrower since the room for springs on each side was no longer necessary. The plywood floater could be lighter now that

it was less wide.

Labor of drilling was eliminated and the labor of assembly was eliminated when we decided to have the base assembled by a supplier in his shop and delivered to us completed. After all we are not in business to manufacture shipping containers and have neither the best equipment nor the best trained personnel for this.

Now let us recap the saving we have achieved with this method. We eliminated the bolts and springs, etc., and attendant cost of carrying them in stock. We eliminated labor of assembling the base now that we get it in one piece. We have a slightly smaller, and consequently lighter in weight, package — thus ship-ping costs are less. We have fewer separate components of a package to keep track of.

This, plus the smaller package. enables us to store more in less space—which is essential. All in all, our dollar savings by use of this new method amounts to \$75,-000 per year at present volume.

In addition to this savings we have also taken a look at some of our products usually shipped in wood crates to determine if we could ship them in corrugated containers without sacrificing required safety. We experimented with four of our smaller items in corrugated containers.

We maintained the floating suspension characteristic because we

feel this is very important. We have found on these four packages that we can reduce our material costs approximately 30-40% and our labor costs by 50-60%.

On these four items we estimated our annual savings on the present volume at \$32,000 including labor and material. We are continuing to explore other possibilities along these same lines to extend savings wherever possible. While we do not expect to accomplish miracles or even to achieve major improvements overnight we are confident that more improvement is possible.

Gummed tape ups efficiency

YOU MAY NOT THINK that gummed tape would offer too many avenues to increase plant efficiency—but leave it to Andre Paper Box Co., San Leandro, to apply better ways to utilize tape dispensers.

Net result: lower costs and fast-

er handling of packages.

Andre planned wrapping areas to eliminate wasted motion and lost labor. Stations are equipped with automatic tape machines. These dispensers supply the correct amount of gummed paper tape with action controlled by foot levers. A pliable gummed tape, which makes it easier to tape irregular as well as standard packages, is used in dispensers.

Says Martin Erjavec, director of purchasing. "Adequate carton sealing is of utmost importance to us because so much of our merchandise can be easily damaged if the shipping box comes open. It's for this reason we devote more than ordinary attention to our wrapping situation.

Dispensers are cleaned and adjusted on a regular schedule. "We believe that a dispenser that goes out of kilter just when a rush order must be shipped can cause almost as much trouble as a machinery breakdown," Erjavec notes. "For one thing water contact must be exact to give a positive stick, and water contact depends on accurate adjustment."

Water is slightly heated in the dispensers to increase adhesiveness. The spacious wrapping tables provide freedom of movement. Foot pedals control a set length of gummed tape, and end time-consuming hand adjusting actions. While one length of gummed tape is applied to a carton, a foot pedal is stepped on and another piece of tape is fed over the water trough. The tape is cut, the glue is wet to the right stickiness, and is available just when the wrapping operator wants it.

Visitors to Andre are impressed by the complex machinery which produces these intricate cartons, and they are equally impressed by the methods this firm adopted to streamline the entire business of boxmaking from receiving, through processing, to final shipment of the finished product.

Folded cartons are shipped flat. At one time cartons were bundled with rope. Damage to contents plus the extra time required to rope-tie the cartons brought about

the shift to paper gummed tape. Andre Paper Box Co. uses Flash-tite, a gummed tape manufactured by Crown Zellerbach Corp. This tape is favored because it gives increased pliability for ease in sealing irregularly shaped packages, and is resistant to scuffing and rough handling.

The firm buys some 50 cartons of tape a year. "We're not a big purchaser," declares Erjavec, "but we watch our tape costs closely. It's these seemingly small things that raise costs of material handling, and sometimes create production bottlenecks.

Western firms worried about rising materials handling costs may well judge their own wrapping operations in the light of how Andre Paper Box Co. achieved extra efficiency in this relatively ignored plant depart-

Strapping device streamlines work

SAVINGS OF ALMOST \$10,-000 ANNUALLY in manpower alone have been achieved at Menasha Container of California, a division of Menasha Wooden Ware Corp., in its plant at Anaheim, Calif., by streamlining packing operations.

STRAPPER saves \$10,000 annually.



Key to the savings is an automatic round steel strapping machine.

Prior to the installation of this machine, cartons flowing off the production line were stacked by hand and tied with twine. The operation was slow and time consuming . . . in addition to which, the cartons were easily damaged if the twine broke as a result of

rough handling.

Now, up to 26 ties per minute can be made using round steel strapping instead of twine—and it requires only one operator to handle the entire strapping operation. The strapping unit, which is mounted on casters, is easily moved into the flow of cartons coming off the production line, and although only one machine is used at Menasha container, two can be used in a tandem arrangement, with dual ties of 13½-in. or more centers.

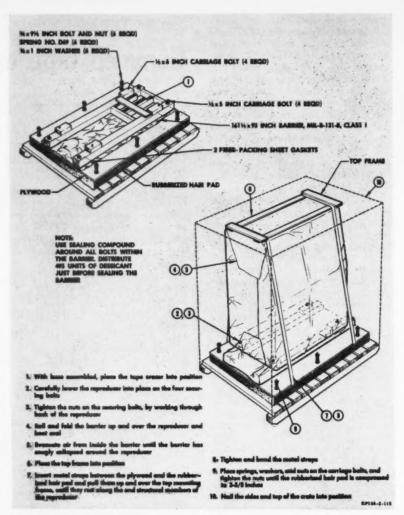
Packages, with size capacities of a minimum 2-in. high x 8-in. wide, and a maximum 33-in. high x 34-in. wide, flow on conveyors through the strapping unit. Tops and sides are automatically compressed, and at the touch of a foot pedal, round steel strapping is automatically tensioned around the

package.

When no longer needed on one conveyor, the entire unit, made by A. J. Gerrard and Co., is easily moved to the next location for operation.



MASKING TAPE (Minnesota Mining & Mfg. Co. #232) replaced rubber bands on Fisher Flouring Mills Bulk-Pak. Before bin is dumped, tape sealing on half of the lid is removed. This half of the top cap folds back as the bin is elevated at the dumper. The "Scotch" brand tape holds the seal on the other half of the lid and prevents the sifting or dusting of the flour as the bin empties.



PACKAGING DESIGN-Diagram above shows package for delicate parts.

Packaging delicate instruments

PACKAGING A HEAVY, precise and delicate instrument like the Signal Data Reproducer—used to record tape information from airborne tape recorders logging happenings inside aircraft—presented North American Aviation engineers with a problem.

Weighing 655 lb., the unit is of such delicate construction that ordinary packaging methods proved inadequate. It took months of calculations, evaluations of material and experiments before a package capable of withstanding every conceivable rigor of shipment was designed.

Working in close cooperation with North American's packaging engineers. the Harbor Box & Lumber Co. built a shipping container in which was incorporated a suspension system restricting the acceleration of the reproducer to a maximum load factor of 30 G's . . . when the package was subjected to a 24-in, edge and corner rotational drop tests.

The design consists of a sheet of latex hair sandwiched between the deck of the exterior container and a sub-base to which the re-

producer is secured.

Compression springs are utilized to pre-load the hair cushion to improve its efficiency and to restrict rebound. In addition, since the 30 G requirement results in a cushion system having a natural frequency in the range of rail and truck carriers, the springs serve as isolators for high amplitude impulses encountered at resonance.

PLYMOUTH® LOCOMOTIVES with Torqomotive Drive 3 TO 80 TONS

Here's the lineup of well-known Plymouth power in models from 3 to 80 tons . . . narrow or standard gauge . . . Gasoline or Diesel . . . mechanical or Torqomotive Drive . . . Diesel-Electrics. Records of users show Plymouth's economy, efficiency, dependability. Find out how these profit characteristics can improve your operation and cut costs.

PLYMOUTH LOCOMOTIVE WORKS Division of The Fate-Root-Heath Company

Dept. A-27, Plymouth, Ohio



J SERIES Mine-O-Motive, 15 to 25 tons. Diesel powered with exhaust conditioner, Torqomotive Drive. Approved under Schedule #24.



DMS SERIES Mine-O-Motive, 8, 10 or 12 tons. Diesel powered with shaft drive to both axles, full power shifting. Approved under Schedule #24.

CR SERIES, 40 to 60 tons. Diesel powered with shaft drive to both axles, full power shifting, Torqomotive Drive. Speeds to 35 MPH.



Industry's Smoothest Switchers



SINCE 1914 Plymouth Locomotives have been used for heavy hauling and switching jobs. They have proven themselves in year after year service with rock bottom economy, maximum availability, minimum down time. Pictured above is the new WDT Cab-in-front model, 40 tons, in service hauling pulpwood. Both the MDT and WDT are available in this model or in the standard models shown below.



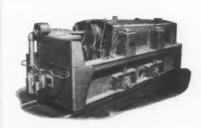
M SERIES, 25, 30, 35 or 40 tons, Diesel or gasoline, mechanical or Torqomotive Drive. This is the standard model, rear cab.



J SERIES, 12, 14, 16, 18 or 20 tons, Diesel or gasoline, mechanical or Torqomotive Drive, Available on 4 or 6 wheels.



D SERIES, 8, 10 or 12 tons, Diesel or gasoline, mechanical or Torqomotive Drive. Cast or Welded Frame.



F SERIES, 5, 6, or 7 tons, available as mine type (illustrated) or cab type. Torqomotive Drive, short wheelbase.



PLYMOUTH TANDEMS — M or W Series 50 to 80 tons. The M or W Series can be built for tandem, single control operation, up to 80 tons on either 8 or 12 wheels. Each locamotive can also be operated individually.

*Targametive Drive; Plymouth transmission coupled to hydraulic tarque-convertor.

PLYMOUTH LOCOMOTIVES

PLYMOUTH LOCOMOTIVE WORKS

In The West It's Cleveland

INSPIRATION, ARIZONA—Rather than use a conventional heavy top-running crane in their flotation mill, the Inspiration Consolidated Copper Co. installed a 3-ton cab-operated Cleveland Tramrail crane for servicing the hydro-separators, sumps and other equipment. The tramrail crane and runway are far lighter in weight,

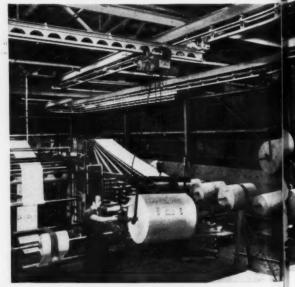
thereby effecting a large savings in crane, as well as supporting structure. It has ample rigidity and is built with a safety factor of five. Greater convenience in handling is obtained because the right end of the crane interlocks with a spur track enabling loads to be transferred directly to a swinging jib crane in the next bay. Speeds are bridge 150 f.p.m., trolley 33 f.p.m., hoist 100 f.p.m.



PORTLAND, OREGON—Three 3-ton, 67'-0" long Cleveland Tramrail cranes on adjacent runways have been in constant service since installed 18 years ago in the warehouse of Woodbury Hardware Co. They provide fast, efficient handling for a tremendous variety of

hardware. Two or three of the cranes can be interlocked, as required, to permit traveling loads from one to another. Photo shows two cranes interlocked hoisting a load through the hatchway from floor below.

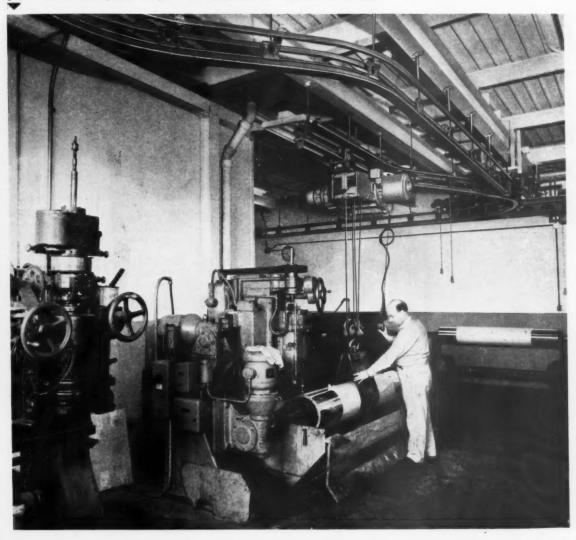




Tramra

NEARLY EVERY WESTERN INDUSTRIAL COMMUNITY HAS TENSIVE INSTALLATIONS OF CLEVELAND TRAMRAIL OVERHEAD MATERIALS HANDLING EQUIPMENT IN USE

LOS ANGELES—Copper gravure cylinders used for printing are heavy and must be handled with extreme care for the slightest dent or scratch can mar fine printing. At the Los Angeles plant of Alco-Gravure, Division of Publication Corporation, 2,000,000 copies of "This Week Magazine" are printed every week for distribution in West Coast newspapers. Gravure cylinders for this work are handled through the various steps with 3000 lb. handpropelled carriers and electric hoists over a Cleveland Tramrail track and switch system. Illustrated is a 1650 lb. cylinder being placed in a grinder.



BERKELEY, CALIF.—Cleveland Tramrail equipment plays a prominent role in the production of multi-wall paper bags at the
Ames Harris Neville Co. The crane at left is handling a printed roll from the press. The hoist at right is placing a roll (48" wide, 1152 lbs. wt.) into the creel of a tuber. The Tramrail equipment is so easy rolling that only the hoists are electrified.

> Write for free Engineering and Application Booklet No. 2008. Packed with valuable information.

WESTERN CLEVELAND TRAMRAIL REPRESENTATIVES:

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Cleveland Tramrail

Cleveland Tramrail Cleveland Tramrail Cleveland Tramrail California Co. 870 Market Street San Francisco 2, Cal.

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WESTERN INDUSTRY — April 1959



ASSORTED ITEMS going into makeup of kits. These will be packaged in one container for shipment.

Packaged repair kits cut costs in plant maintenance and supply

WHAT HAS PACKAGING got to do with economies in supply and maintenance operations? . . . a great deal when the packaging is to do with the Repair Kit Concept now adopted for standard use by each branch of the armed services.

Consider the definition of a repair kit offered by the Specification Packaging Engineering Corp., North Hollywood, Calif., a company concerned with producing packaged kits in volume.

"A repair kit is a group of line items and materials selected in accordance with established criteria, and normally consolidated into one package, identified and stocked as one item."

The kit concept closely parallels that which has been used in the automotive industry for years. It is only within the past year that the procedure has been adopted by all branches of the armed services, and it is gradually being adopted by industry in general because of the very real savings involved.

What are the advantages of repair kits over the old method of individual line items?

Inst this

Numerous items can be deleted from stock lists. With this goes all such paperwork as individual blueprints, item descriptions, stock numbers, individual line item billing and accounting. Shipments from prime contractors to individual stations and reshipments to specialized repair sites by individual line item have been eliminated with repair kits being shipped directly from contractor to overhaul sites. The expense and time attendant to numerous follow-ups and individual line item requisitions have been eliminated.

Production line stoppages have been prevented and hundreds of man hours in production scheduling, receipt, storage and issue on the repair line have been consolidated or eliminated entirely. In addition, production time in actual overhaul has been considerably reduced.

On one item alone, 63 spare parts were consolidated into a single repair kit, thus realizing an annual saving of \$5,000.00 over the additional material cost, in internal overhaul processing actions (and these savings, it may be added, didn't take into account such factors as stock listing, budgeting, billing, packaging and shipping costs.)

So don't be confused if, at first

glance, the initial cost of buying repair kits as compared to the cost of buying separate parts appears to average about 20% higher. The superficial figures are deceptive, as cost-conscious industry in the West is rapidly finding out, since the higher initial purchase price is more than offset when the costs of procuring, stock listing, receiving, keeping inventory, accounting, storing, scheduling, issuing, cleaning, assembling, inspecting, etc. of a single item is taken into account.

What determines which parts are included in the kits?

Experience has established the following general rules:

 Items with a unit cost of \$1.00 or less, which are normally removed during disassembly for preventive maintenance.

 Items costing between \$1.00 and \$2.00 which are normally expected to be replaced 35% or more each time the assembly cycles through repair or overhaul.

 Items expected to be replaced 80% or more of the time during repair or overhaul, regardless of cost unit.

In short, the entire concept of repair kits is based on the realization that it is cheaper, as far as supply and maintenance costs are concerned, to have available individual replacement parts in one convenient package, and to effect a 100% change-over—even if some parts replaced are not quite worn out.

That's what engineers in the armed services have discovered . . . and gradually industry in the West is latching onto the savings involved.

Trucks and racks team up for maximum storage

MAXIMUM SPACE UTILIZA-TION is vital in storage operations in the West—and the resulting narrow aisles have presented serious handling problems.

At Max Factor & Co.'s new plant in Hawthorne, Calif., designed to house consolidated production and warehouse facilities in an area covering over a quarter of a million square feet, almost half the space is being devoted to storage operations.

Racks are set back-to-back and cover eight-foot areas, with 8 ft. between racks and aisles. With 26-ft. ceilings, this meant that if the vertical space could be used effectively, pallets could be stacked seven high.

But the problem was finding a fork truck which could manipulate in the narrow aisles.

Engineers at Max Factor got together with the M. E. Canfield Co., in Los Angeles, and agreed to take a look at a 24-v. electric type fork truck manufactured by Lewis-Shepard. A reach type of fork attachment gave promise of being able to efficiently reach additional distances over the storage racks, lift the load, pull it back close to the mast, and hold the load steady at a height of 180-in. The unit worked perfectly.

Using 48 x 40 in. wide pallets, the reach type truck moved easily in and out of the 8-ft. aisles carrying 2,000-lb. load capacities. Additional advantages were found in the battery operation of the lift unit. With a potential of 200 woman workers in the plant, and because cosmetics come under the Pure Food and Drug Act, it was vital that fumes be eliminated . . . while keeping operation costs low and maintenance costs at a minimum.

The trucks have been operating average 60-hr. weeks during the move into the new plant, and virtually without down-time.

Storage racks used at the new plant are worth special note, too.

Also provided by M. E. Can-

Also provided by M. E. Canfield, they are manufactured by Sturdi-Bilt, the material handling division of Union Asbestos Co.

Of float wedge construction, they are quickly erected; "... when I came home from lunch one day, two men had set up a complete storage section," Jack Shultz, warehouse superintendent at Max Factor recalled. They can be rearranged or relocated; simply adjusted; require no tools, nuts or welding, and all parts are reusable.

Here's how they work:

Upright frames are slotted throughout their entire height on 3-in. centers. Safety support bars can be locked anywhere on the frame from within 6 in. of the floor and every 3 in. thereafter to the top. A safety feature is the depressed ledge design of the support bars, which not only catch misplaced pallets, but also permit flush installation of decking and accessories without welding.

Special fabrication techniques produce giant vacuum bottles

GIANT VACUUM BOTTLES of aluminum and stainless steel, 52 ft. long and 8 ft., 8-in. in diameter, have begun to roll out of Standard Steel Corp.'s new Alloy Fabricating Division in Los Angeles.

Used for storage of liquid oxygen for the Air Force missile Thor, the tanks represent one of the most exacting alloy fabricating jobs ever attempted.

Designed to hold up to 13,500 gallons of liquid oxygen at 297.4 deg. F below zero, the tanks have a high-strength, Reynold's aluminum outer jacket and a series 300 stainless steel inner shell. Unusual fabrication techniques were needed in construction of the aluminum units, because tanks had to be light enough for air shipment yet strong enough to support 170,000 lb. of liquid oxygen when full.

The techniques are as follows:

Cleaning:

Stainless steel assemblies, heads and shell courses are pickled in huge tanks lined with plastic carbon brick. Nitro-pickling with 20% nitric acid and hydrofluoric acid (4%) is done at temperatures of 140 deg. F. Heads and shells are pickled in one dip.

Special equipment for chemical cleaning of aluminum shell courses, heads, and smaller assemblies has been installed using an Oakite cleaner. This step is primarily to eliminate oxides and contamination so as to approach welding fusions equal to the uniformity of the parent metal itself.

Machinery:

A plate planer for machining edge preparation of shell plates, having a table size of 22 x 30 ft. and capable of handling 10 ft. wide x 30 ft. long plates is used. Plate rolls, set-up rolls and all other process machinery and equipment are wrapped to protect aluminum and other materials being processed.

Welding equipment:

Welding process used in fabricating both the stainless steel and aluminum tanks are TIG (Tungsten Inert Gas) and MIG (Metal Inert Gas). Both use inert gas as a shielding medium to keep air

away from the arc and molten weld pool. Proper quality control is assured by use of special holding jig fixtures.

Final assembly work:

Is done in a dust-free room kept under slight pressure to prevent infiltration of dust. Concrete tloors were completely sand-blasted and a special surface hardener applied to discourage dust collection. White paint, rubber soled shoes, and white cotton uniforms add to cleanliness standards.

Testing procedures:

A mass spectrometer is used with helium to detect leaks. Vessels are pumped down to full vacuum, as low as a few microns. The vacuum is pulled in the annular space and held for 24 hrs. The rate of rise in microns is then noted and the initial rise must be no greater than one micron perhour.

Any air, liquid or gas entering the inner shell is filtered to prevent contamination. Sintered metal filters of 40 micron particle size are used to remove any foreign particles.

Degreasing:

Trichlorethylene vapors are used on internal surfaces. Hot vapor enters the cold tank, condenses on the inner surface and drains down the sides of the tank removing all traces of hydrocarbons. Liquid is then drained out of the bottom and recovered. Tanks are then blown with hot air to remove all traces of vapor and purging is continued until a halogen leak detector will report the presence of not more than 1 or 2 ppm. trichlorethylene.

AUTOMATIC INERT GAS shielded arc welder. Welding is being done on inner stainless steel shell of liquid oxygen storage tank.





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ductive because it maneuvers easily. Because it's electric powered, it can start fast and reverse direction at a flip of a switch. With knuckle type steering axle it handles as easily as an automobile.

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KNOW-HOW NOTEBOOK

Production increases 20 to 1 on machining aluminum honeycomb

A 20 TO 1 INCREASE in production on cutting a precise contour and taper on aluminum honeycomb has been realized by Convair.

The honeycomb was needed on leading edges on wings and fins. But producing the honeycomb proved to be a tough job-and it

had to be done by hand. How did machining come into the picture? E. E. Raines, manufacturing research engineer, says: "We took an engine lathe and devised a method for profiling parts."

The machined part, cut to shape, then is expanded to 30 times its original size - leaving hundreds of tiny honeycomb-like air spaces, yet sacrificing much less in strength than the 30 to 1 expansion ratio.

Thin metal plates are glued to the surface of the honeycomb core to make a "sandwich,' thus giving it tremendous "muscle."
One of the big jobs in design-

ing the lathe cam was to get the proper proportion. Though a 1inch-long piece of honeycomb can be expanded to 30 inches, it reduces in diameter, or width, in the process.

"We determined that a template would work if it were 25 per cent greater in size than the lines layout," Raines said.

Most honeycomb is expanded on a special table, where pins are inserted between the end layers of foil. Then, like fingers, the pins pull the honeycomb to its proper proportion.

On tapered core, however, manufacturing research developed a method for bonding a small metal plate to each end to facilitate ex-

Employees on the expanding table watch the core until the hundreds of core openings each are in a near-perfect hexagonal shape-which lends it maximum strength.



Atomic hydrogen welding is used to attach new links to chain. Here, Jim Russo, service

Exact skill needed for reconditioning of sling chains

RECONDITIONING SLING CHAINS is an exact science-especially when there can be a million dollar's worth of material and men's lives at stake.

To assure proper repair of sling chains, the American Chain Division of the American Chain and Cable Co., Inc., has set up a service shop at its San Francisco warehouse (890 Tennessee St.). This shop specializes in reconditioning chains of all makes and grades.

Here are some of the strict procedures that go into the reconditioning of sling chains:

1. When a chain is brought in, it is cleaned thoroughly to make defects more noticeable. Then the



E. E. Raines, right, examines honeycomb cut to specifications on geared lathe. Honeycomb is machined as solid piece, expanded up to 30 times original shape.



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chain is hung in vertical position. The reach is measured and checked against the original length. If there is an increase of over 3% this spells danger... as the chain has been stretched beyond safe limits

2. Then each link is inspected for grooves, nicks, distortions, bent and worn links. Suspicious links are measured minutely. Any links that do not measure up are cut out. And any fittings that are unsafe are also taken out.

3. New links and fittings—of the same alloy as the original chain—are connected with atomic hydrogen welding. This welding process uses a mixture of electricity and hydrogen. The advantage of this method is that it does not destroy any of the components that make up a metal alloy. Atomic hydrogen welding uses a special 8620 alloy welding rod and is an exacting process. It takes a skilled welder about ½ hour to weld a link.

4. All body links and couplings that have been welded are heat treated as follows: (a) normal-

ized at 1700 deg. F. and air cooled; (b) re-heated to 1500 deg. F. and water quenched; (c) submerged in a molten salt bath and tempered to 1050 deg. F. This thermal treatment promotes chain with a 255-269 Brinnell hardness.

5. The newly-assembled chains are then placed in a proof tester and tested at twice the working load limit. As the load limit usually has a 4 to 1 safety factor, this test actually subjects the chain to 8 times its working limit.

6. Then the sling is re-inspected, registered with a metal ring or tag, and a certificate is issued. A complete file is kept on the chain, much like a doctor keeps on a patient.

This method of reconditioning sling chains has won the approval of many plants in the West. Many of these plants used to have their own sling chain repair shops. But they realize that you can't repair a chain with just any link or welding . . . and you can't afford to take chances when a costly load or men's lives hang in the balance.

Forging job shop gains versatility in three ways...

THE MORE VERSATILE you are in a forging job shop, the better off you are.

Moore Dry Dock, Oakland, Calif., has found it requires a lot of in-built flexibility to handle the wide variety of jobs — from the smallest hooks to shafts over 50 ft. long—that often are in the shop at the same time.

To meet this challenge, Moore has achieved much versatility in three lines: (1) equipment; (2) scheduling; (3) personnel. Here are some features of in-built flexibility in these lines:

EQUIPMENT—the company relies on a battery of flat die hammers with 800 to 6,000-lb. capacity; a 500-ton press; and a hydraulically driven 1,500-ton press. With this range of forging presses, the company can handle an extremely wide range of parts.

The three gas-fired forge furnaces have been extended to take billets to make shafts as long as 50 ft. The heat treat furnaces have also been extended to handle such big jobs.

And an addition has been built on the quenching tank so it can take long parts. Fast, thorough quenching is assured by an agitator and a heat exchanger which continuously circulates and cools the oil.

Cutting equipment includes a wide range of torches, some of which can cut up to 56 in. in thickness. Oxygen is piped right into the shop so a plentiful supply is always available.

Moving many parts around—some of which are extremely heavy—requires flexible material handling equipment. The work horses in the forge shop are two overhead cranes, a 50-ton and a 20-ton, both equipped with Heppenstall grabs to pick up parts of any size and shape. Other cranes and fork lifts are also equipped to handle varied parts weighing anywhere from ounces to tons.

The forge shop is installing a ring roller that will handle the largest rings west of the Mississippi. This machine can roll rings

Trucks give maximum efficiency in hot metalworking operations

FOR MAXIMUM EFFICIEN-CY in the feeding of ore into reduction cells, and the removing of the hot metal for pouring into pigs, Anaconda Aluminum Co., Columbia Falls, Mont., switched to industrial power trucks.

Formerly, bridge cranes did the trick. But the lack of flexibility of the overhead equipment sometimes caused delays.

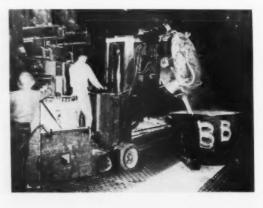
Now the 60,000-ton-per year reduction plant uses a fleet of 14 electric trucks to handle the loading of cells with aluminum and briquettes. The trucks also tap the cells and carry off hot metal in ladles for pouring.

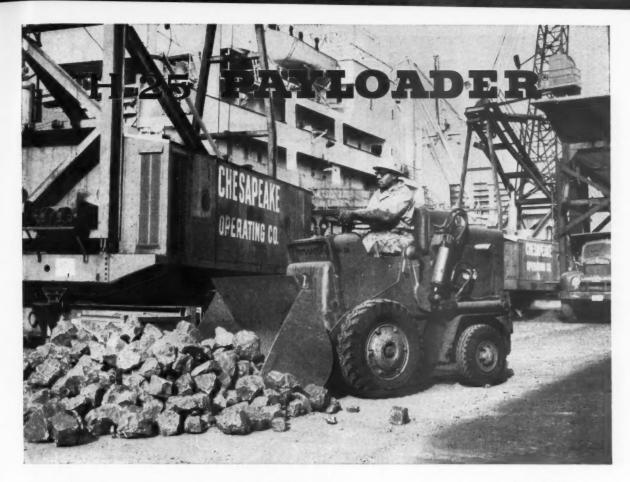
To utilize the many features of industrial truck handling, Anaconda uses the Pechinet reduction process, which involves cells with vertical instead of horizontal anodes.

The cells can thus be sideloaded at floor level by the Elwell-Parker trucks.

Thus, overhead crane traffic is reduced and cranes can be concentrated on adjusting anode heights in reduction cells.

Truck works handily in the pouring of hot metal. The use of trucks frees overhead cranes for other work throughout the plant.





shorter turning · power-shift powerful pry-out · power-steer

Frederick Buffington, ore superintendent of Chesapeake Operating Company, says, "The Model H-25 'PAYLOADER' with its shorter turning radius, power-steer and power-shift transmission wins the battle in our heavy ore handling work. It's a faster all-around operation because of pry-out bucket action."

With its 2,500 lb. CARRY CAPACITY, the H-25 gives them 25 to 50% more capacity than previously available in a machine of this class, and shortest turning radius of 72". Power-steer and power-shift transmission with 2 speeds forward and reverse assures fast and easy operation. Exclusive power-transfer differential gives more positive traction, and with 4,500 lb. bucket breakout force combine to get full loads under tough digging conditions.

The "PAYLOADER" system is a flexible, economical way to handle bulk and many other materials. There is a size and type — from 2,000 to 9,000 lbs. carry capacity — and many attachments, to fit your requirements, indoors or outdoors. And there is a nearby Hough Distributor to discuss them with you.

HOUGH



Chesapeake Operating Company, and its parent company, Lavino Shipping Company, are large bulk ore handlers at several East Coast ports. These firms have had 8 to 9 years experience with "PAYLOADER" tractorshovels in ships holds and on barges and docks. They now have a number of the Model H-25 units at various ports.

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Send literature on all "PAYLOADER" models and the many attachments:						
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Milt Trevorrow, shop superintendent, stands beside two of the hooks made in the lob shop. Top versatility is needed to produce custom jobs of many sizes.

in minutes, compared with regular forging operations which require hours.

And when it comes to testing, Moore has installed ultrasonic Magnaglo and Magnaflux testing equipment that can meet the most exacting testing requirements.

SCHEDULING-Milt Trevorrow, shop superintendent, is responsible for scheduling work through the shop, for maximum use of both men and equipment. As much as possible, jobs are scheduled on paper so they will be routed smoothly and efficiently. Enough flexibility must be allowed for meeting any kind of emergency situation.

When jobs come into the shop, they are written up on a master scheduling sheet, with a sketch showing dimensions of the work. A suspension file card is also made up and put into a regular file where tab can be kept on pro-

gress of the job.

First step is to see that the right material is in stock and that the right die is made for the particular job. Fortunately, Moore stocks a good supply of metal. But if there's any doubt as to the proper metal to use, a top-notch metallurgist is consulted or a test sample is run through before the production run.

How about dies? Moore's machine shop is fully equipped to turn out dies in the shortest possible time. Sometimes standing dies are modified to fit a particular job. Occasionally, operations are improved by using a torch to sink a hole in a block-out die rather than machining it.

Now, about scheduling work through the shop . . . Every effort is made to dovetail work so presses, furnaces, heat treat, quenching tanks, etc., are kept constantly busy. Every day, or oftener if need be, work is scheduled through the shop so that all equipment is kept busy. Starting with the furnaces, instructions are given to the furnace man so that billets will be at the proper heat for forging. The furnace operation is flexible enough so that a billet is quickly brought to its correct temperature for the forging operation.

In heat treating, forgings are run through according to alloy. Heat treating instructions are written so there can be no mistake. By careful scheduling through the heat treat operation,



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small and large parts can be handled simultaneously so that parts may be pulled at any time to be

quenched.

Good liaison between the forge shop and the testing laboratory is also essential. As soon as a test coupon is taken from the forging, it is whisked by truck to the laboratory. A routing slip contains all specifications desired in the forging. The laboratory has been alerted to run the test through as soon as it is received . . . and have the answer back in minutes.

PERSONNEL — Moore Dry Dock Company has built its work force around key personnel who can handle a wide variety of jobs. With these key personnel, the right man for any job can be found. Combined with the shop scheduling program, Moore is certain of sufficient manpower to meet its work requirements.

How about emergencies, etc.? Allowance, of course, must be made for emergencies in forging operations. Scheduling must allow room to make sudden changes and adjustments to meet any circumstances. But thanks to versatile equipment, scheduling program, and personnel, Moore's Forge Shop delivers on time.

Surface coating protects aluminum against corrosion

ALUMINUM IS SUBJECT to staining and abrasion resulting from careless handling prior to and during use, and when used in conjunction with plaster there is danger of the surface being damaged.

But dulling from atmospheric fumes and weathering is what causes long term trouble, and with variations of climate like those experienced in the Western states, it was a problem which had to be

solved.

When the \$40,000,000 Convair plant for the manufacture of Atlas missiles was built recently in San Diego, much had been learned about a surface coating that provides protection against dulling.

Surface of the aluminum wall sections was coated immediately following fabrication with a clear half-second butyrate lacquer coating. Metalco, Inc., of Emeryville, Calif., which supplied the alumi-



Operator sprays aluminum panel with halfsecond butyrate lacquer coating.

num sections for the Convair plant, conducted extensive tests of the lacquer coating . . . and achieved such notable results, that the company has now adopted the lacquer for all aluminum requiring a protective finish.

Here's how the coating is ap-

plied

The sections of aluminum are first anodized and then lacquered by being sprayed with conven-



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tional equipment. Sections are ready for handling after about 5 min. of air drying—which is important since Metalco recently altered its plant operations to a conveyor system. Characteristics of the lacquer include: great abrasion resistance . . . no discoloration and high resistance to salt spray, lime and mortar. The tests also proved that the butyrate coating exhibited the best adhesion to various types of aluminum and wasn't affected by constant immersion in water.

During construction, the aluminum sections were erected in the normal manner without special handling, and except in areas of extreme contamination, rainfall was found to be sufficient to wash off any accumulation of dirt or

grime.

Half-second butyrate, the basic film-forming ingredient in the W. P. Fuller & Co. coating, is supplied by Eastman Kodak Chemical Products, Inc.

Casting technique cuts costs 50% over machining

HERE'S A CASTING TECH-NIQUE that cuts costs 50% over machining—and allows complete freedom of design.

The E. B. Wiggin Oil Tool Co., Los Angeles, needed to produce their "Wig-O-Flex" coupling two pieces of rigid, sealed-tight tubing—faster and more efficient-

Previously, parts were made on a turret lathe from 302 stainless steel, and costs were high because of the loss of metal in the milling operation. In addition, the Wiggin Oil Tool Co. was eager to

After the wax patterns have been formed by injecting wax into die, they are grated together in clusters.





After cooling, the investment is removed by means of vibrating hammers.

lighten the load on its machine shops.

Solution to the problem was provided by the Arwood Precision Casting Corp., Los Angeles, which produced thousands of the exact reproductions required in difficult-to-machine stainless steel alloy, by its investment casting

technique.

Wax patterns are formed by injecting wax into the die, where they are gated together into clusters. The gated clusters are then dipped into a slurry of very fine grained investment material, after which stuccoing is done by shaking somewhat coarser sand over the cluster. This adheres to the damp slurry. After stuccoing, the clusters are placed in metal flasks and the final investment material is poured in around them. The flasks are then placed on a vibrating table and a vacuum is drawn around them to exhaust all the air from the investment.

Completed flasks are sent to the foundry on a roller conveyor. Next step is baking at moderate temperature to melt out most of the wax, and firing at high temperature to burn out all the re-

maining volatile matter.

The flasks are placed on a special casting bench and the castings are poured. A suction is applied to the flasks during pouring to assure complete filling of the mold cavities. After cooling, the investment is removed by means of vibrating hammers. Last step before finishing and inspection is grinding off the gates and risers.

Inspection and testing follows, including use of a tensile testing machine used to measure strength at elevated temperatures. It is capable of exerting pull of up to 60,000 lb. In addition, parts are

magnetic particle and X-ray inspected, heat treated and finished.

The result of this casting technique at Arwood Precision Casting, is that parts which were previously 100% machined, requiring costly machine tools; rolling, turning, grinding and turret lathe lathe work, can now be produced at half the cost—while maintaining the high quality production standards demanded in precision components.

"Hot space suits" allow operations in frigid areas



Operator plugs in space suit to battery on lift truck.

"SPACE SUITS" — electrically heated from current taken from battery-powered fork lifts—enable truck operators at Merchants Refrigerating Co. of California (Modesto) to work for long periods in cold storage rooms at temperatures of 15 deg. below zero and colder.

Suits are government surplus worn by crews of high flying aircraft. They take 100 watts at 24-v. It is possible to plug in the coat, pants and shoes separately or as

a unit.

With these "hot" suits, the sixteen operators can run their trucks into the cold rooms . . . which have the capacity to store 13,300 tons of poultry, fruits and vegetables

All material is palletized and standard techniques are required inside the cold rooms. And with the heated "space suits" the operators can really warm up to their jobs.

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A local phone call brings your Diamond Distributor fast! He's trained in factory methods and can give you engineering data and personal attention that will save you time and money.

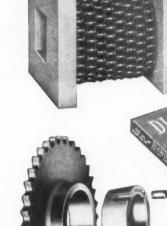
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Roseburg..... Bearing Sales & Service, Inc. HATU

Sait Lake City. Utah Sprocket & Mach. Co., Inc.

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Aberdeen... ... Mill & Logging Supply Co. Everett.... Washington Belting & Rubber Co. Longview..... Bearing Sales & Service, Inc. . . Bearing Sales & Service, Inc. Pasco.... Seattle Washington Belting & Rubber Co. . Washington Belting & Rubber Co. Tacoma Walla Walla. White Bros. Co.

WYOMING

Casper... Great Northern Tool and Supply Co. Power Service, Inc.

. . . for more details, circle No. 37 on Reader Service Postcard See listing in Directory Section

Best material handling manuals

yours for the asking . . . use postcard opposite p. 130

Racks, bins, shelving

Meet Speedrack, an adjustable storage unit

Speedrack's functional design is disarming in its simplicity, but the basic soundness of each detail becomes apparent as you study each of the three basic components presented here in detail: the upright truss, beams, connector. Assembly, adjustment and layout dimensions are probed to provide storage for pallets, skids, drums, dies and other merchandise of unwieldly shape. Specifications complete the 12-page book. Storage Products Corp.

. . . for your copy, circle No. 200

Big treatment for racks, shelving, bins, etc.

In this big volume's 10 tab-indexed sections and nearly 200 pages, you'll tind a collection of separate catalogs dealing with shelving, bin units, racks and a variety of other equipment such as tiling cabinets, shop equipment, transfer cases and material handling equipment. It covers all these products fully, plus many others, with specifications, illustrations, planning tips, application photos and tables. Republic Steel Corp., Berger Division.

. . . for your copy, circle No. 201

How to have a portable storage room

Use a Work Carrier, says this four-pager. Material is placed in the carrier at the receiving dock or manufacturing department, then the carriers are transported to storage, to the next process, to shipping, or whatever. The Work Carrier serves as a temporary and portable storage room making loading, unloading or transferring unnecessary. See what the carriers look like and how they work. You'll also find a partial list of users. Mechanical Handling Systems, Inc. ... for your copy, circle No. 202

Two on pallet racks, stock boxes

Sections of these two booklets will brief you on pallet racks and several types of steel stock boxes. Three pallet racks are spotlighted: one made of master panels with bedpanel units assembled without bolts, a second of vertical panels with horizontal channel runners, and a third with vertical panels and horizontal beds bolted into position. Of the stock boxes a three-sided box, a sectional and an inexpensive unit are pictured and captioned. Lewis-Shepard Products, Inc. . . . for your copy, circle No. 203

Woven wood and wire containers

Here's something different, and something worth looking into: woven wood and wire stacking boxes, skid boxes and box trucks. The webbing is of northern elm slats bound with steel wire for strength and resiliency; exposed edges are rounded and corner joints of the framework are jointed for long-lived ruggedness and holding power. The bottom extends complete through the lower cleats so it can't sag, pull out. The eight-pager is well illustrated. G. B. Lewis Co.
... for your copy, circle No. 204

Introducing service-truck shelving

Meet a new line of steel shelving for installation inside panel trucks. It utilizes previously wasted space over the rear wheel wells to provide a low-cost, compartmentalized storage for tools, spare parts, supplies and other equipment. Multi-purpose, it comes close to giving you something for nothing. Penco Div., Alan Wood Steel Co.

... for your copy, circle No. 205

Brief on prefab pallet racks

A single page leaflet condenses prefabricated pallet racks to a few telling pictures and clear concise text. A handy ordering-gram is included on which you can write specifications in spaces allowed for them, and in case you're curious, there's a list of 18 pallet rack users. Hamerslag Equipment Co. . . . for your copy, circle No. 206

Idea picture book on folding pallets

Kargo-Pal is a folding pallet designed to reduce production, operating and inventory time to a bare minimum. And the many pictures in this book will show how it's done. Advantages are listed—one, two, three—so you can quickly appraise the unit for your own use. Colorado Fuel & Iron Corp. for your copy, circle No. 207

How to conquer inner space

With gravity racks, that's how, according to this fourpage leaflet on live storage racks. Large and clear pictures show various types in use and captions explain their advantages. Lamson Corp. for your copy, circle No. 208

Be your own storage rack expert

And you can with this 22-page "here's how" book. There's much here for both those who are aware of the fundamentals of designing and constructing a storage rack and for those who aren't. Here are all of the important rack considerations incorporated into a chatty, clever and informative piece, with diagrams and drawings galore. Tube-Strut Corp.

... for your copy, circle No. 209

The Stackbin system . . . what it is

A stacking system composed of bins, special racks and accompanying equipment is the center of this 18-pager. The basic unit is well illustrated, as are variations on it which can help solve many storage problems. The booklet says there is a Stackbin container for every industrial need, so have a look. Stackbin Corp.

. . . for your copy, circle No. 210

10-ton storage rack with three assemblies

A four-pager reports on a new adjustable, boltless 10-ton storage rack which goes together in only five minutes with three basic assemblies: upright, Z-brazing and shelf arms. Another heavy-duty adjustable rack is highlighted in a second four-pager with advantages and specs given. Rack Engineering Co. for your copy, circle No. 211

How to have custom-fitted racks

These pallet racks can be custom fitted to your exact needs because of their modual design feature. See the racks illustrated and find out about the personal touch in this four-page leaflet. Johnson & Flaherty.

. . for your copy, circle No. 212

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HYSTER SALES COMPANY 612 Main Street, 3-5441

...-for more details, circle No. 38 on Reader Service Postcard

-See listing in Directory Section

How to increase storage by 400%

You can do it with an adjustable boltless rack, according to this four-pager, which claims you can also cut your handling cost in two. One or two men can assemble this rack quickly as there is no bolting, no welding; load bars simply slip into key slots. To see how it works and find out more about possible savings get this picture-data sheet. Sammons & Sons.

... for your copy, circle No. 214

Storage units with float wedge construction

The thing to study here is the float wedge construction feature of these storage racks, because that's what lets you assemble them in a matter of minutes, adjust instantly as inventory changes and add on, relocate, rearrange or disassemble with practically no effort. The floating wedge is pictured and explained, then shown in many applications. Union Asbestos & Rubber Co.... for your copy, circle No. 215

A system for small parts handling

Nesting and tiering equipment designed specifically for small or medium parts handling is pinpointed in an eightpage leaflet with dozens of illustrations. The complete system is well explained, each individual piece of equipment analyzed and a number of ideas for its use given. Includes specifications. Nestier Corp.

... for your copy, circle No. 216

One-shelf adjustable storage rack

Presented here for storing loads where only one shelf is required is a new adjustable storage rack. The one-shelf unit doesn't require any sway bracing front or back, makes stock selection easy and goes up in a matter of minutes,—all definite advantages. Palmer-Shile Co.

. . . for your copy, circle No. 217

Idea book for space making

These 30 pages research unlimited combinations of slotted structural steel to exactly fit any framing requirements you might have. A cartoon character directs you in solving a typical storage problem, while the balance of the book proves that if you can visualize it, you can build it with structural steel. Equipto. . . . for your copy, circle No. 218

Slide-n-Lock adjustable storage racks

If you rack on skids or pallets, rack barrels, or store dies or bulk—consider these slide-n-lock adjustable racks. The stringers are one-piece with step construction for simple conversion and have positive double-wedging locks. A four-page leaflet reviews their possibilities. An accompanying single sheet introduces the drive-in or drive-thru storage rack. American Metal Products Co.

. . for your copy, circle No. 219

The science of economical shelf storage

That's the title of a 16-page picture brochure which states that engineered shelving is the key to lower material handling costs and sets out to prove it. Rotabin is this firm's solution to storage problems and the pamphlet shows the advantages of Rotabins, what factors determine shelving efficiency and how the unit satisfies them, plus design and construction feature. Many photos, both product and application, complete the book. Frick-Gallagher Mfg. Co.

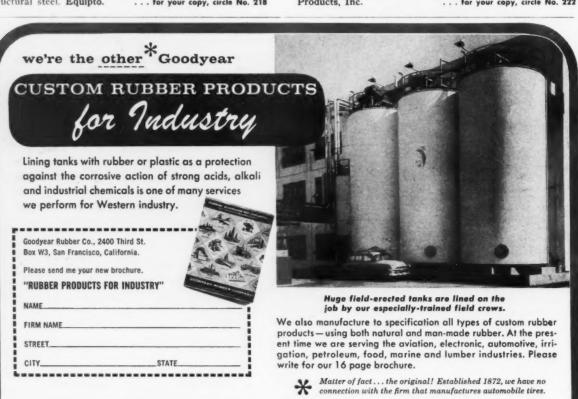
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A variety of engineered storage systems

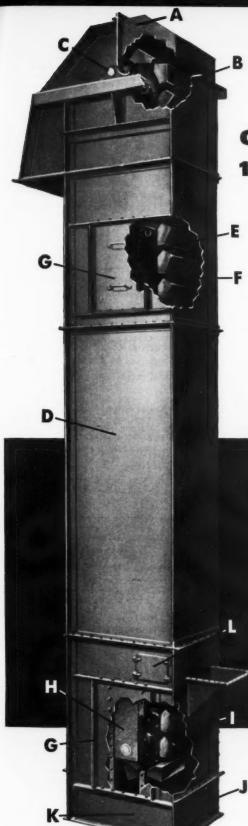
With systems that enable you to move the greatest volume of an item at one time, your cost of handling is reduced and your profit margin increased. Here are a series of storage systems designed to store the most items in a given cube—so you will never need fewer storage facilities—and let you move the maximum number of items when that time comes. In these 14 pages you'll find at least one system you can use. Paltier Corp. ... for your copy, circle No. 221

Steel shelving designed for you

If you'd like a thorough survey of your stock rooms and an analysis of your shop container problems, here's a firm to consult. Lyon will do just that for you, then recommend the proper steel shelving, its location, arrangements, a part finding plan and any other helpful information. This 16-page book will give you a good idea of the steel shelving, shop boxes and toolroom equipment the firm offers. A second leaflet is a handy guide to sliding shelf shelving, something else you may find handy for your plant. Lyon Metal Products, Inc.



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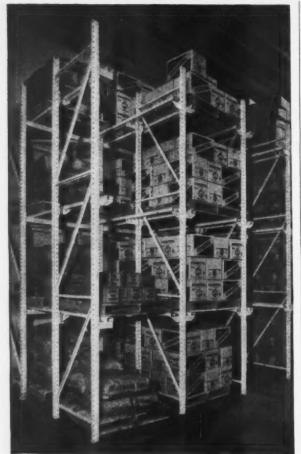
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- F. Equipped with heavy-duty steel knuckle chain assuring long life.
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- H. Internal gravity take-up assures constant and proper tensioning of chain and alignment of foot shaft.
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- J. Cleanout doors at front and rear.
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SPEEDRACK SAVES SPACE



. . . for more details, circle No. 41 on Reader Service Postcard

-See listing in Directory Section

Slotted angle for all-purpose framing

Here's a compilation of slotted angle systems for 1001 temporary or permanent jobs that should be a basic idea reference book on your desk. Each of the 30 basic joint designs is pictured, while specifications and angle load data will help you in plotting solutions to your storage problems. FlexAngle Corp. . . . for your copy, circle No. 223

Flow rack for live storage

This 12-page fold-out shows you graphically and pictorially that wherever material is accumulated, a flow rack can be used: receiving, storage, manufacturing, assembly, order selection, packing and shipping, to list but a few. A concise definition of live storage will put you in the know, while drawings contrasting live and dead storage will show you the former's definite advantages. Rapids-Standard Co., Inc.

... for your copy, circle No. 224

Imagineering with metal lumber

You can build just about anything with your imagination, construction angle and this book. Just plan, cut and join; you'll have storage space for any size, shape, weight item. Tables and instructions help you calculate the load. Republic Steel Corp. . . . for your copy, circle No. 225

Pre-engineered steel storage racks

You can have custom storage from pre-engineered units with these Stormor racks which are set up to stay without cutting, drilling or welding. You can make your own custom storage by just bolting or slipping the units together. A four-pager gives you instructions and shows you how it's done. Butler Mfg. Co. for your copy, circle No. 226

Four types of tubular steel racks

This leaflet compiles facts on four different types of tubular steel racks for pallet, skid or shelf storage. And tells you how to decide between a boltless, bolted, bolted-adjustable or boltless-adjustable rack for your plant. It also briefs other types available. A second sheet treats collapsible pallet storage racks in some detail. Mechanical Handling Systems, Inc.

64-page guide to steel shelving

Designed to help you in selecting the proper shelving to satisfy your storage requirements, this deluxe book is divided into sections on storage shelving, shop equipment, library shelving, storage cabinets and the verti-file. Each colorful section features large clear pictures and concise text, also specifications. Indexed as well, it should answer almost all your steel shelving questions. DeLuxe Metal Furniture Co.

... for your copy, circle No. 228

Introducing the Fiberglas tote pan

These Fiberglas reinforced polyester tote pans are new on the market and may be the answer for cost-conscious, efficiency-minded industries. They are light, strong, durable and very versatile, handling a wide range of products, parts and materials. Get this introductory 10-page leaflet for pictures and more detailed information. G. B. Lewis Co.

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Keep your parts in place

No doubt that this 32-pager has a jumbo drawer, a steel shelf, bin, bench or tool toter that you can use. Its idea-packed pages will help you solve the majority of your storage problems with construction angle and you can do it yourself too. Equipto. ... for your copy, circle No. 230

A myriad of racks for a myriad of uses

Racks for proofing and cooling, standard or space-saver racks, suspended racks, heavy-duty or aluminum—these are just a few of the many types which comprise this 20-page brochure. These and more are pictured and detailed in text with specifications for each. Union Steel Products Co.

... for your copy, circle No. 231

New angle on storage problems

For full information on a new slotted angle aimed at solving storage and material handling problems, get this colorful four-page introductory booklet. The angle involves no welding, drilling or special skills;—you just plan, measure, cut and bolt, and presto! racks for any purpose. You'll gets lots of ideas from the myriad of drawings here, too.

Acme Steel Co.

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In Sewer Construction, Why Are 20-Foot Lengths of Pipe Better Than Short-Section Pipe?

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HUB CITY GEAR BOX helps Conveyco Icer double capacity!

In less than a minute this Conveyco Icer handles more than twenty 300-pound blocks of ice. Power output for the grueling hour-after-hour operation is transmitted through a Hub City Gear Box.

Hub City Angle and Worm Gear Boxes --- in a variety of sizes --- may be attached from top, bottom or side for either clockwise or counter clockwise rotation --- without relocating shaft gears --- without having to carry a larger stock of gear boxes.

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ings . . . easy wear adjustment for gears and bearings ... spring-loaded oil seals ... easy disassembly and reassembly ... availability of production-made parts ... a variety of optional equipment. These are just a few Hub City advantages that assure longer, dependable performance.



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Four standard model Palletainers

Here are four standardized Palletainers, and we'll wager you can use at least one. The Hi-Lode was designed for fast, easy eight-way lift truck handling; the warehouse model has an end gate or dropside gate, whichever you prefer. A bulk-Lode model handles fine granular or fluidtype loads using heavy-duty paper or plastic liners, while the bearing plate model has nine legs welded to formed steel bearing plates for floor protection and application where floor loading is critical. Send for this 18-page picture book for engineering information. Union Steel Products Co. . . . for your copy, circle No. 280

How to double your warehouse capacity

Proper space utilization and simplified handling is the solution advanced by this 16-page brochure. Several methods of doubling capacity are illustrated, more discussed, including various uses of steel shelving. Rotabins and special purpose equipment. Frick-Gallagher Mfg. Co.

. . . for your copy, circle No. 233

Strapping Equipment . . .

Guide to complete line of strapping, equipment

These 16 pages are a guide to the complete line of U.S.S. These 16 pages are a guide to the complete line of U. S. S. steel strapping machines of both the round and flat types. The booklet abounds in pictures of different machines in operation, gives steel strapping data and concludes with demonstrations and survey information. A good guide for anyone needing strapping, equipment or strapping service.

Gerrard Steel Strapping Dept... for your copy, circle No. 234

52-page indexed pocketbook on strapping

This spiral-bound handbook on strapping and materials handling equipment is progressively indexed so you can reach in a second any section: automation, steelbinder, strapbinder, bulkbinder, wirebinder, tapebinder and specialty products. Each section pictures and describes all the firm's different models and includes specifications. A. J. Gerrard . . . for your copy, circle No. 235

Basic book on steel strapping

These dozen pages will easily fill in the gaps in your knowledge about steel strapping. In sections on tensional strapping, heavy-duty strapping, strapping seals, tools and accessories are pictures, specification tables and general information which anyone using strapping should have. Brainard Steel Div., Sharon Steel Corp. . . . for your copy, circle No. 236

Carloading check chart for anchored loads

Hang this chart on the wall for your shipping room and loading dock personnel. It fulfills a long-felt need by pro-viding clear, simple illustrations of carloading procedures for wall anchored loads, as well as giving instructions for preparing the car, wrapping anchor plates, bulkhead construction and the use of strapping tools. Signode Steel Strapping Co. . . . for your copy, circle No. 237

Ask the men who cut the straps

They'll tell you that easy-slip jaws, spring jaw openers and comfortable grips will help them cut more straps in less time with less fatigue. This six-page pocket-sized leaflet shows five strap cutters with those features plus others that help cut costs and speed up work. H. K. Porter, Inc. . . . for your copy, circle No. 238

Seven basic steel strapping applications

The uses of steel strapping extend throughout all industries where materials are handled, with still pping assisting in inter and intra-plant movement during all stages of production and shipping. This 44-page manual treats seven basic application categories-reinforcement, closure, baling, bunadding, palletizing, typing, car loading—and strappings suitable to each. Stanley Steel Strapping Div. . for your copy, circle No. 239

How to save money with wire stitching

Wire stitching is a fast, economical method for assembling or closing corrugated and solid fibre boxes securely. It utilizes a stitcher and continuous-length coils of steel stitching wire. Look over the different types available and how they work in this 28-page booklet then see if you can't save money by using one yourself. Acme Steel Co.

. . for your copy, circle No. 240

ALLEN-BRADLEY OILTIGHT



Bulletin 836 Type T

For machine tool hydraulic systems-operating at pressures up to 5,000 psi

Especially designed for heavy duty industrial applications, these new Allen-Bradley oiltight high pressure switches assure long, trouble free life. The attractive die-cast aluminum enclosure is completely sealed to exclude oil and water. The snap-action switch mechanism maintains its high contact pressure to the point of switchover—no matter how slowly it is approached. Contact chatter is eliminated-trouble free contact life is increased. The contact block has two isolated circuits with one N.O. and one N.C. set of contacts.

Send for complete information on this newest addition to Allen-Bradley's wide line of quality pilot controls.

Both operating pressure and differential are adjustable on these new A-B oiltight pressure switches. Operating pressure is externally adjustable, and setting shows on calibrated scale. A trip indicator shows operating point.



Internal view of piston design used on units for systems above 500 psi. Bellows type construction is used up to 500 psi.





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U-RAIL

SLIP-ON FITTINGS and Std. I.P.S. Pipe







Pallet Racks

No Threading! No Welding!

NU-RAIL high-tensile aluminum fittings slip on the pipe, and the unique offset design permits as many as three pipes to pass each other without cutting.

Any man in your maintenance or warehouse departments can build sturdy racks with only a hex key and a hacksaw, using new or used pipe in standard I.P.S. pipe sizes. Completely flexible . . . adjust to meet changing requirements. 100% pipe salvage.

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... for more details, circle No. 46 on Reader Service Postcard See listing in Directory Section Introducing the pneumatic steel strapper

A pictorial introduction to the pneumatic steel strapper shows the tool at work in many different industries where many different positions are required. Drawings show ease of operation, while a final page of text covers specifications. Acme Steel Co. . . . for your copy, circle No. 241

Better ways to package, unitize and ship

A 50-page pocket-size booklet spotlights new methods of packaging and unitizing products in all industries, along with recommending methods for shipping these products by rail, truck or for intra-plant handling. An excellent basicidea book to have on hand, it also treats a complete line of strapping equipment. Signode Steel Strapping Co. . . for your copy, circle No. 242

Picture book of power strapplications

One look at the jet power air-powered strapping tool in operation in this picture manual and you'll want to try one yourself. It's one of the most versatile power strapping tools available, combining uniform, pre-determined tension with high speed take-up for production line strapping of all types of containers, packages and bundles in a wide range of sizes. Stanley Steel Strapping Div.

. . for your copy, circle No. 243

A most complete steel strapping handbook

In this 44-page handbook you'll find steel strapping methods, unit-load methods, data on actual steel strapping, tools and equipment, and much other information on how steel strapping can aid most industries in packing, shipping and handling materials. The attractive, well-illustrated booklet will answer most all your questions on the subject of steel strapping. Acme Steel Co.

. . . for your copy, circle No. 244

Basic ways of unitizing

Why unitize? Here's a good question. And it's answered in this 12-page fold-out by several lists of substantial reasons. Basic ways of unitizing are illustrated, as well as the equipment necessary. Signode Steel Strapping Co. . . . for your copy, circle No. 245

A new idea in fastening

Metal stitching, what it is, when and where it's used, and how it's done is the subject of this 16-page booklet designed to acquaint engineers and production men with metal stitching as an effective fastening technique. Stitching simplifies design problems, saves time and cuts costs, according to this book, so it's something you should know more about.

Acme Steel Co. . . . for your copy, circle No. 246

Conveyor Belting . . .

How to select steel processing conveyor belts

A 16-page picture-data book offers you seven standard steel processing belts that will handle 90% of your production requirements. There's a choice of belts made in high carbon, galvanized or stainless steels and none requires an intricate installation. Selection made simple is the purpose of this book with its blow-ups of belt structure, data sheets and installation diagrams. Wickwire Spencer Steel . . . for your copy, circle No. 247

Conveyor belting for all industry

Be it heavy-duty, medium or light-duty service, there's a conveyor belting in this 12-page book to handle the job. Or perhaps it's foundry service, acid-resistance, oil-resistance, high-heat and abrasive belts that you need; they're here too, with plenty of pictures and lots of clear text.
United States Rubber Co. ... for your copy, circle No. 248

Hycar and rubber conveyor belts

Lots of information in small space is what you'll find on this single sheet. One side treats Hycar conveyor belting for extreme grease and temperature conditions; the other pre-sents Amber 23-oz. rubber belting with friction surface top and bottom for conveying and transmission. Specs included. Globe Woven Belting Co., Inc.

... for your copy, circle No. 249

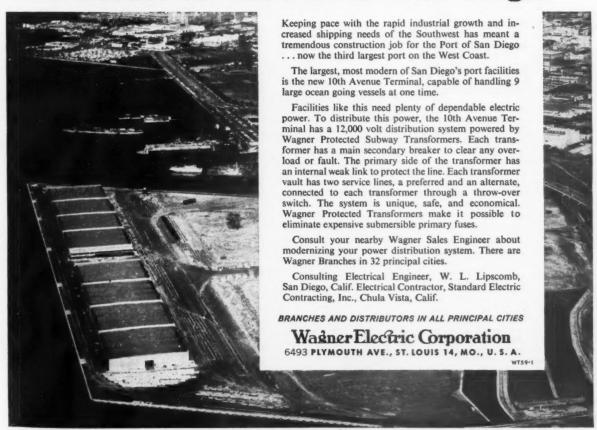
Flat roll belting and flat endless belts

This eight-page leaflet serves as an introduction to Dick's balata in flat roll belting and flat endless belts. After you've noted the advantages of this type of belting, you'll find out about horsepower ratings, prices per foot, specifications and engineering data. R. & J. Dick Co.

. . . for your copy, circle No. 250



POWER for the Port of San Diego



ut

50



...for long-term unfailing performance

The ElectroLift worm-drive hoists—in capacities from 1/4 to 10 tons . . . compact design requiring minimum headroom ... superior braking power ... simplicity of operation—are noted for their productive and dependable long life. Consult your local ElectroLift representative, or write for a complete catalog.



204 Sargeant Avenue

Clifton, N. J.

. . for more details, circle No. 48 on Reader Service Postcard See listing in Directory Section

Mechanical ADJUST-A-DOCK

■ Truck Actuated Counterbalanced

■ 27" Lip Travel



The TAL "Adjust-A-Dock" will improve freight transfer, provide safer operation and reduce manual labor. Completely powered by the freight carrier, the platform deck is lowered to the truck bed from its raised, standby position as the truck is backed into the truck lever arms. The platform adjusts to the bed during freight transfer. When the truck pulls away, the platform automatically returns to the "up" position. Its rugged construction and basic operation assures minimum maintenance and long life.

See Us in Booth 2009 at the Material Handling Convention, Cleveland, June 9-12.

The "Adjust-A-Dock" is available in six models - for mounting in front of an existing dock, or for recess installa-

Write for detailed engineering bulletin.



ROWE METHODS, inc.

... for more details, circle No. 49 on Reader Service Postcard See listing in Directory Section Golden anniversary belt carriers

The conveyor belt carriers you'll see in this 20-pager are The conveyor belt carriers you'll see in this 20-pager are the result of 50 years of experience in building thousands of successful installations. When this firm talks about these eight series of carriers, it knows whereof it speaks. Pictures and drawings accompany explanatory text for ball bearing carriers, standard three-roller styles, deep-trough carriers, rubber-roll impact carriers, and other types. Stephens-Adamon Mig. Co. son Mfg. Co. . . for your copy, circle No. 251

Conveyor belting engineering guide

This guide is designed to give the engineer, step-by-step, the basic essential engineering data necessary to calculate the tensions involved in the average conveyor belt and to select the proper belt to give the lowest cost-per-ton of material carried. An index will lead you to data on specific phases of conveyor belt selection, such as belt speed, horse-power requirements, belt selection, etc. Raybestos-Manhattan, Inc. for your copy, circle No. 252 . . for your copy, circle No. 252

120-page handbook for designing belt conveyors

This handbook contains sufficient engineering data for any engineer or layman to design a belt conveyor for average service. You can solve many conveyor problems simply by using the terminal selection tables in this book; they've been so indexed and classified that by referring to them it's easy to select a conveyor to suit your requirements. A complete line of necessary equipment used in building a belt conveyor is also listed. Jeffrey Mfg. Co. . . . for your copy, circle No. 253

Get your belt conveyor in a package

The Ready-Span belt conveyor is a packaged unit, complete with accessories, for most bulk material handling applications. It has standardized sections of various lengths which are easily combined on the job site by unskilled labor to form a pre-engineered, strong, rigid conveyor. See how it works in this 20-pager, with an analysis of the individual parts, selection tables and engineering data. Joy Mfg. Co. . . . for your copy, circle No. 254

Variety of conveyor and elevator beltings

For many years conveyor and elevator belt systems have been recognized as one of the most efficient and economical methods of solving a wide variety of material handling problems. This firm has been in the field for over 70 years and presents in this 12-page booklet the results of long years of experience with belting. You'll find belts for handling highly abrasive materials, for food processing operations, dockside and carloading installations, high heat belts, high tensile belts. Neoprene and Ruff top belting, to name just a few. Well illustrated. Thermoid Div. of H. K. Porter Co. . . for your copy, circle No. 255

A unitized all-metal conveyor

On-the-job features of this all-metal (steel, aluminum. Armorbelt. Pictures and captions detail weight, load capacity, tensile strength, life, flexibility, sprocket drive and roller mounting, as well as eight other points. A general discussion of what the belt can do is followed by specifica-tions and engineering data. M-H Standard Corp. . . for your copy, circle No. 256

How to handle the hot stuff

Hot material belting, detailed in this 24-page book, is only one of the special service industrial conveyor beltings pre-sented alongside another section on standard conveyor and elevator beltings. Sixteen pages of engineering data give you facts galore on both types. Republic Rubber Div., Lee Rubber & Tire Corp.

Potpourri of hose and belting

These 12 pages are a guide to the selection of the proper hose, V-and transmission belting, and conveyor and elevator belting for your needs. To help you in your choice are pic-tures, diagrams and service data charts of many different types of hose and belting. Thermoid Div. of H. K. Porter Co. . . . for your copy, circle No. 258

10 continuous flow conveyer systems

A series of double-page spreads pinpoints 10 different types of continuous flow conveyer systems in this 32-page booklet. You'll find pictured and briefed roller, wheel, belt chain, overhead trolley, elevating and other types, as well as ball transfers and special conveying machinery. Definitely worth a look-see if you need a continuous flow system.

Mathews Conveyer Co. for your copy, circle No. 259

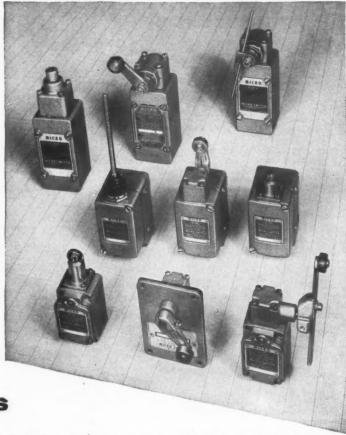
Here's how you can automate your plant at low cost and get high immediate savings

Thousands of plants have cut the "profit squeeze" by making their existing production equipment more automatic with compact, reliable, long-life MICRO SWITCH precision switches.

This procedure requires little investment. The savings are very worthwhile. The pay-off is immediate.

One manufacturer reports a production increase of 250% from two machines. Another reports savings of four times the amount of his investment, which was less than \$1,000. Still another is now automating his third plant.

In short, simple MICRO SWITCH automation shows a big return in a short time on a minor investment.



Countless examples exist of how MICRO SWITCH automation can be applied with practically no disruption of production and with drastic reductions in costs, improved product quality, and less spoilage.

MICRO SWITCH Precision Switches for industrial use are available promptly from the authorized distributor near you. Send for Catalog 101.

MICRO SWITCH . . . FREEPORT, ILL. A division of Honeywell In Canada: Honeywell Controls, Ltd.,

Toronto 17, Ontario

Look in the Yellow Pages for location of Branch Office or name of Authorized Distributor



Honeywell

MICRO SWITCH PRECISION SWITCHES

. . . for more details, circle No. 50 on Reader Service Postcard

Engineering guide for steel belt conveyors

Since the turn of the century these steel belt conveyors, employing an endless belt of cold rolled strip steel, have been in use. Here's an engineering guide with all the data you'll need on this type of belt in brief, concise form.

Sandvik Steel, Inc. ... for your copy, circle No. 260

Belts for continuous high-temp furnaces

The belts exhibited in this 42-page loose-leaf notebook are the result of several years of time and research in the field of high-temperature alloy belts, their inherent problems and their design improvement. This is the story of Wissco rod-reinforced alloy belts, their attributes, advantages and applications. And it's told with blown-up pictures of belt construction, special features, basic selection data, specs and installation facts. Wickwire Spencer Steel Div.

... for your copy, circle No. 261

132 pages on woven wire conveyor belts

This impressive loose-leaf volume should be on every design engineer's desk. It opens with a brief survey of the belt manufacturing process, pictures and describes installations in some of the 30 industries using the belting and then proceeds to cover metals, alloys and choice of materials for belting. This is followed by sections on belt selection with full scale illustrations of different gages, constructional features, conveyor design, installation and operation. Engineering formulae, tables and questionnaires complete this fact-packed manual. Cambridge Wire Cloth Co. for your copy, circle No. 262

Advantages of metal conveyor belts

You all know some of the advantages of metal conveyor belts, but this book will fill you in on some we're sure you've never thought about. After convincing you to use metal belts (it does), it gives you many to choose from, showing weave constructions in detail, telling how to designate mesh sizes, make belts endless, reinforce them and so on. Includes many application photos. Cyclone Fence Dept., American Steel & Wire Div., U.S. Steel.

. . . for your copy, circle No. 263

. . for your copy, circle No. 265

Select the right belt for your job

And this pamphlet can help you do it too. Two pages treat nothing else, giving an actual example and the tables necessary for working it out. Specifications for five belts for as many uses cover two pages, while the rest of the booklet shows in detail various belt constructions. Barber-Greene Co. . . . for your copy, circle No. 264

The flat belt conveyor system

A flat belt conveyor system has a wider field of usefulness than any other one type of power conveyor. You'll see why when you read through this 20-page article-type booklet on the many styles and types available. Comparison charts tell some of the story; the rest is told in large clear pictures and readable text. Presented is the use of these belts in the metalworking, automotive, building materials, chemical and food industries. **Ton-Tex Corp.**

Inside story on Boston belting

The inside story of Boston belts is their balanced construction, according to a 28-page brochure on elevator and transmission conveyor belting. And the outside story is Dulon covers. Find out more, including specifications, in this colorful picture-fact book. Boston Woven Hose & Rubber Co. . . . for your copy, circle No. 266

Introducing an all-synthetic belt

Many things are made from synthetics these days, and now a transmission belt. The center section consists of one or more strips of pre-stretched polyamide plastic bonded to outer plies of a synthetic fabric, while the driving face is covered with a frictioned surface. According to this sixpage leaflet, there's no stretch, no slip, great strength and high temperature resistance. Find out more about it, and study the application pictures too. R. & J. Dick Co., Inc.
... for your copy, circls No. 267

Brief on six Innerlocked belts

Six types of conveying and elevating belts with Inner-locked construction and special impregnating compounds are briefed in this fold-out leaflet. An application for each is pictured and explained in a quickie caption. Imperial Belting Co. . . . for your copy, circle No. 268

Conveyor, elevator belts for standard use

The belts outlined in this 22-page booklet are suitable for all standard installations, although the text helps you select the proper belt for many unusual jobs, too. A page of special belt terminology will help you "get with it" in the field and a second page with illustrations will aid you in understanding basic conveyor belt construction. Then you can proceed to the final pages to select the type of belt you need. Raybestos-Manhattan, Inc.

... for your copy, circle No. 269

High carbon precision pitch belting

Woven wire belting in high carbon precision pitch, the only belting that will run on a spike pulley, is briefed in a two-page leaflet. Condensed are facts on widths, speeds, applications, flights and means of driving. R. T. Sheehan Co.
... for your copy, circle No. 270

"Off-the-shelf" belt conveyor equipment

Some 13 years ago this firm recognized there was a need for standardized "off-the-shelf" belt conveyor equipment and took steps to purchase a line of idlers. Today these idlers, refined to eliminate all castings and develop a 100% welded steel assembly, as well as a quick-acting lock to hold shafts, are presented in a 22-page picture booklet. A run-down of the contents table indicates that you'll find sections on flat idlers, grain-type idlers, guide idlers, impact idlers, self-aligning units and many more. J. D. Christian, Engineers.

Buyer's guide to better belting

This 6-page leaflet is a composite of a complete line of conveyor belting, including solid woven, balata, neoprene. hycar and canvas-stitched. Pictures and brief captions give ample information to the potential belt buyer. Victor Balata & Textile Belting Co.

Conveyor idlers . . .

23 types of belt conveyor idlers

Here's detailed engineering selection data on five new series and 23 types of belt conveyor idlers, illustrating their versatility for a wide range of conveyor applications. The 40 pages treat the complete line, which includes idlers for belt widths from 14 to 84 in. Illustrated and key-indexed. Link-Belt Co. . . . for your copy, circle No. 273

Limberoller, the idler with flex appeal

Limberoller is a flexible, single-roll belt conveyor idler suspended from a bearing at each end to form a natural troughing catenary. It is designed to handle any bulk material which can be transported by a belt conveyor. This 12-page leaflet gives application data and complete specifications and is designed for anyone who selects, specifies and uses conveyor idlers. Joy Mfg. Co.

... for your copy, circle No. 274

General purpose troughing idler

Here's a belt idler designed for moderate service and general application in the narrower belt widths. Heli-arc welding assures a permanent moisture seal and shell ends are counterbored so the idler is easy on the belt. Read about the idler's other features and advantages; you may need just such a unit. Chain Belt Co.

Introducing the maintenance-free idler

With Permaseal idlers on the job you can virtually forget about maintenance, says this eight-page leaflet, because new-type grease seals protect bearings for years without servicing. See other features of this idler, different types and typical installations pictured in these eight pages. Jeffrey Mfg. Co. ... for your copy, circle No. 276

Introduction to 630 belt conveyor idlers

Here's a new line of belt conveyor idlers which includes 64 variations and more than 630 types and sizes. No matter what your belt conveyor application, there's an idler here specifically designed to meet it. Link-Belt Co.
... for your copy, circle No. 277

If you have high tire replacement costs because of these conditions...



ROUGH OR UNEVEN SURFACES
you need tires resistant to severe



TIGHT TURNS
you need tires resistant to separation at rims



OVERLOADS
you need tires resistant to undercutting and separation



CHEMICALS OR SOLVENTS
you need tires made from special
Neoprene stocks



METAL SCRAP OR DEBRIS you need tires resistant to culting and chipping



HOT ROD DRIVERS you need a better driver training program

... switch to MONARCH solids and save!



Engineered for tough service, MONARCH industrial solids are reducing replacement costs for thousands of savings-conscious users. These dependable high-performance tires are made from special Compound T-48C, the toughest natural rubber stock developed to date. That's why they feature outstanding shock absorption . . . superior resistance to cutting, chipping and abrasion. MONARCH solids also provide surefooted stability for greater safety on short turns and high lifts.

Whatever your application, MONARCH solids give you more tonmiles of service per dollar invested.

> FOR DETAILS AND SPECIFICATIONS, ask your Monarch dealer . . . or write direct . . . for CATALOG MR-457.

THE CATALOG

MONARCH

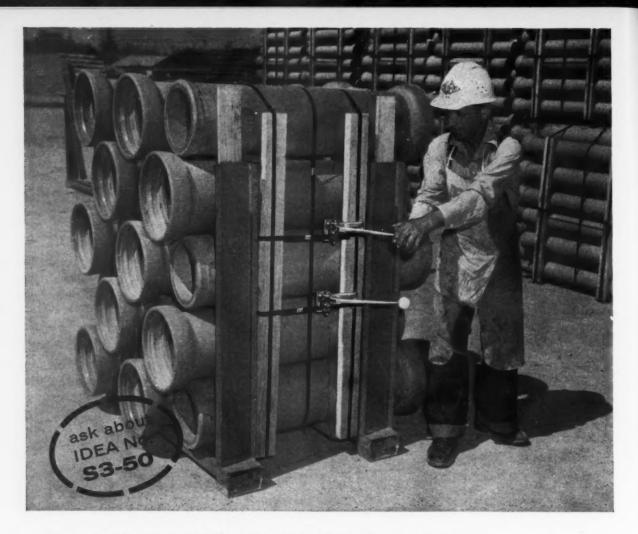
280 LINCOLN PARK • HARTVILLE, OHIO • 7-225 General Motors Bldg., Detroit, Mich.

- 7-225 General Motors Bldg., Detroit, Mich
 2353 No. California Ave., Chicago, III.
 WESTERN WAREHOUSE: Reno, Nevada
 - . . . for more details, circle No. 51 on Reader Service Postcard
 See listing in Directory Section



2400-WD

9



Work with your AIM*...Pacific Clay Products does...

Steel Strapping unitizes pipe to cut handling costs

Acme Idea Man J. R. Roberts works with many firms to develop improved materials handling and packaging procedures.



A better, faster, more damage-free method of handling and shipping their "Wedge-Lock" sewer pipe was sought by Pacific Clay Products, Stockton, California. Working with their Acme Idea Man, a system for unitizing pipe with Acme Steel Strapping and the new B5 Stretcher was developed. It proved to be the answer to their problems. (Idea No. S3-50)

Now twenty 8-inch pipes are unitized into a bundle that permits full use of mechanized handling equipment and allows important man-hour economies. Units can be stacked safely for storage yard efficiency, while inventory maintenance is simplified. Delivery schedules have been improved due to fast mechanical loading that allows more delivery trips per truck. Customers are pleased since damage is greatly reduced. Unitzing affords them man-hour savings, too, through fast unloading by lift truck.

*Work with your Acme Idea Man. Call on his extensive materials handling and packaging experience for Ideas that can save you time, money and customer good-will. He's listed under "Steel Strapping" in the yellow pages of your telephone directory. Or write Dept. wCS-49, Acme Steel Products Division, Acme Steel Company, 4901 Pacific Boulevard, Los Angeles 58, California. Also San Francisco, Seattle, Portland.



STEEL STRAPPING

. . . for more details, circle No. 52 on Reader Service Postcard See listing in Directory Section

WESTERN INDUSTRY - April 1959

WESTERN Material Handling & Packaging BUYERS' DIRECTORY

FIFTH EDITION of a



special service feature for plant operating, maintenance and purchasing executives in the Western states

WHERE TO BUY IN THE WEST

. . . Pages 78 - 115

Contains . . . Names of material handling and industrial packaging equipment manufacturers in the entire U.S. who have Western sales offices, distributors

> Complete buying information is shown with each manufacturer's listing, as follows:

Home office address

Products manufactured

Manufacturer branch offices in the West, their addresses and telephone numbers

Distributors and representatives in the West, their addresses and telephone numbers

CLASSIFIED PRODUCTS

. . . Pages 115 - 125

Contains . . . Names of manufacturers cross-referenced under categories of material handling and industrial packaging equipment.

HOW TO USE THIS DIRECTORY

For any product to be purchased or serviced, or about which further details are wanted. refer to correct manufacturer's listing in "Where to Buy in the West" section to obtain name, address, and telephone number of sales and engineering office nearest to you.

If you want more information about a certain type of equipment but names of manufacturers are not known, refer to correct heading in "Classified Products" section for names of all manufacturers of that item who have sales offices in the West.

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ABC PACKAGING MACHINE CORP. — ALLIS CHALMERS MFG. CO.

ABC PACKAGING MACHINE CORP.,

P. O. Box 276, Tarpon Springs, Fla. Case sealing equipment, Glass and can unloaders and unscramblers, Case opener, Positioner and

Representatives
Calif., Oakland—James Q. Leavitt Co., 410
25th St. TW 3-9966
Ore., Salem—James Q. Leavitt Co. Phone

25th St. 1.0
Ore, Salem—James Q. Leavitt Co.
2-0970
Utah, Salt Lake City—James Q. Leavitt
Co., 502 So. 12th St. E. EL 9-5069
Wash., Seattle—James Q. Leavitt Co., 2702
First Ave. MA 3654

ACME CHAIN CORP., 821 Main St., Holyoke, Mass.

Precision roller chains.

Representatives
Calif., 'Los Ange.es.— J. W. Minder Chain & Gear Co., 6011 So. Central Ave. AU 3-7221
Ore., Portland.— J. W. Minder Chain & Gear Co., 307 S. E. Hawthorne Blvd. BE 6-1131

ACME STEEL CO., 135th and Perry Ave., Chicago 27, Ill.

Strapping, Corrugated fasteners, Wire stitching ma-chines, stitching wire, Steel strapping machines, tools and equipment, AIM brand slotted angle, strip steel.

Calif., Los Angeles—4903 Pacific Blvd. LU Calif., San Francisco—750 Second St. GA 1-7582

See advertisement on page 76

Ore., Portland-2044 N. W. Pettygrove. CA Wash., Seattle—1025 Sixth Ave. So. MA 3-1102

ACORN WIRE & IRON WORKS, 4940 So. Kilbourn, Chicago 32, III.

Wire mesh partitions, Folding gates, Window

Calif., Los Angeles—1709 W. Eighth. HU 3-4747

AEROL CO., 3235 San Fernando Rd., Los Angeles 65, Calif.

Pallet loader wheels

Representatives
Calif., San Diego—Winn Supply Co., 1676
Main St. BE 3-3106
Calif., South San Francisco—Hamerslag
Equipment Co., 110 Freeway Blvd. JU
3-5757
Colo. Denver

3-5757 Colo., Denver — Joe Coursey Equipment Co., 3327 Brighton Blvd. AC 2-9581 Ore., Portland-Air Mac, Inc., 1111 S. E. Grand Ave. BE 4-6524 Wash., Seattle—Air Mac, Inc., 3838 Fourth Ave. So. MU 3388

AJAX FLEXIBLE COUPLING CO., INC., Portage & English Sts., Westfield, N. Y.

Conveyors (vibrating), Mechanical packers, Vibrating for drums, barrels, etc.

Representatives
Calif., Los Angeles—A. W. Nash Co., 2112
So. Atlantic Blvd. AN 9-7304
Calif., San Francisco—Samson Sales Co.,
420 Market St. EX 2-7070
Wash., Seattle—Stephen Thurlow Co., 310
Walker St. MU 2-5488

ALAN WOOD, STEEL CO., Conshohocken, Pa.

Floor plate, (steel, diamond pattern, super diamond, steel, abrasive rolled anti-slip, A. W. Algrip), Shelving (steel, adjustable), Lockers (steel), Cabinets (steel), Penco brands.

See advertisement on page 28

Calif., Los Angeles—117 W. 9th. MA 7-9937

Representatives
Calif., San Francisco—A. W. Garnjost, 544
Market St. LA 4-1091
Wash., Seattle — F. G. Greaves Co., 418
Eighth Ave. No. EL 0680

ALBION INDUSTRIES, INC., 814 No. Clark St., Albion, Mich.

Casters, Wheels (conveyor, general industrial, hand truck, rubber tired, tractor, trailer).

Calif., Los Angeles—Staniey E. Morris Co., 5584 Alhambra. CA 1-5148
Calif., Oakland—Industrial Service Co., 616
McClary Ave. LO 9-2545
Colo., Denver — Joe Coursey Equipment Co., 3327 Brighton Blvd. AC 2-9581
Ore., Portland — Oregon Handling Equipment Co., 2949 N. W. St. Helens Rd. CA 8-4196

Wash., Seattle — Cascade Handling Equip-ment Co., 1741 First Ave. So. MA 2-7069

ALDEN EQUIPMENT DIV., AMER-CON CORP., 900 No. Alvarado St., Los Angeles 26, Calif. DU 5-3631 Conveyors, Cranes, Racks, Accessories. Distributors for major lines of materials handling equipment.

ALLEGHENY STEEL BAND CO., P. O. Box 716, Pittsburgh 30, Pa.

Steelband stropping, Steelband seals, Tools and accessories.

Colo., Denver-504 Mile High Center. AL 5-5632

Colo., Denver—504 Mile High Center. AL 5-5832

Representatives
Calif., Eureka—Fred E. Barnett Co.
Calif., Los Angeles—General Shipping Rm.
Supply, 837 Traction Ave.
Calif., Los Angeles—W. G. Thorn Co., 2240
E. Washington Blyd. LU 5-8484
Calif., North Sacramento—Fred E. Barnett
Co., P. O. Box 155
Calif., Redding—Cascade Industrial Supply. Phone 3046
Calif., San Francisco—Fred E. Barnett Co., 1455 Center St.
Calif., San Francisco 7—W. G. Thorn Co., 120 King St. EX 7-0776
Calif., San Francisco 7—W. G. Thorn Co., 120 King St. EX 7-0776
Calif., San Jose—San Jose Strapping & Packaging Service, P. O. Box 84
Calif., Ukiah—Fred E. Barnett Co., P. O.
Box 548
Colo., Denver—Carpenter Paper Co., 1504
23rd St.

Colo., De. 23rd St. Der Colo., Denver-Katzke Brothers Paper Co., 2495 So. Delaware Ave. PE 3-4381 Colo., Pueblo—Carpenter Paper Co., 213 W.

Colo., Pueblo—Carpenter Paper Co., 213 W. 2nd St. Idaho, Pocatello—Carpenter Paper Co., 334 So. 1st Ave. Mont., Billings—Carpenter Paper Co., 2019

So. 1st Ave.

Mont., Billings—Carpenter Paper Co., 2019

Montana Ave.

Mont., Great Falls—Carpenter Paper Co., 219 2nd Ave.

Mont., Great Falls—Carpenter Paper Co., 229 2nd Ave.

Mont., Missoula—Carpenter Paper Co., 724

Rose Ave.

N. Mex., Albuquerque—Carpenter Paper
Co., 1242 1st St. Al. 3-6611

Ore., Eugene—American Steel & Supply, 44-51 7th Ave. E.

Ore., Grants Pass—Valley Equipment Co., Redwood Hwy. GR 6-5241

Ore., Klamath Falls—Cascade Industrial Supply, 515 Market St. Phone 3711

Ore., Medford—Valley Equipment Co., So. Pacific Highway. ME 2-6223

Ore., Portland—Portland Wire & Steel, 4706 S. E. 18th Ave.

Utah, Ogden—Carpenter Paper Co., 2429

Grant Ave.

Utah, Salt Lake City—Carpenter Paper Co., 331 Rio Grande

Wash., Seattle—Prime Co., Inc., 4110 Airport Way.

Wash., Seattle—W. G. Thorn Co., 1565

Sixth Ave. So. MA 2-8887

Wash., Tacoma—W. G. Thorn Co., 1551

Puyalup Ave. BR 2-5853

Wash., Yakima—General Hardware Co., 111 W. B St.

ALLIED STEEL & CONVEYORS DIV., SPARTON CORP., 17333 Healy Ave., Detroit 12, Mich.

Tri-Belt loading system.

District Sales Representative
Calif., Los Angeles—Keneth Martin, Western District Sales Representative for the
11 Western States, P. O. Box 907

ALLIS-CHALMERS MFG. CO., Box 521, Milwaukee 1, Wis.

Cranes (yard, truck, tractor), Loaders, Tractors (diesel), gasoline warehouse), Tractor Shovels, Bulldozers, Industrial Trucks.

Branches
Calif., Oakland—1400 Park Ave. OL 3-3100
Colo., Denver—2133 So. Bellaire St. SK Colo., Denver — 2133 So. Bellaire St. SK 6-9473 Ore., Portland—1305 S. E. Union Ave. BE 2-2177

Representatives

Ariz., Phoenix.—Neil B. McGinnis Co., 500
So. Central Ave. AL 8-5391
Ariz., Tucson.—Bogard GMC Company, 2626
South 4th Avenue
Calif., Bakersfield.—California Truck & Industrial Eqpt. Co., 2801 Brundage
Calif., Bakersfield.—San Joaquin Tractor
Co., 1201 Union Ave. FA 4-4517
Calif., Berkeley.—West Coast Eng. & Equip.
Co., 1081 Eastshore Hwy. LA 5-2261
Calif., Eureka.—Trinity Tractor Co., 3408
Jacobs Ave. HI 3-5041
Calif., Los Angeles.—Shaw Sales & Service
Co., 5100 Triggs St. AN 1-7141
Calif., Los Angeles.—Shaw Sales & Service
Co., 5100 Triggs St. AN 1-7141
Calif., Los Angeles.—Shaw Sales & Service
Co., 5100 Triggs St. AN 1-7141
Calif., Los Angeles.—Shaw Sales & Service
Co., 500 Santa Fe Avenue
Calif., Fresno.—Utility Traller Sales Co. of
Fresno. Inc., 2660 South Railroad Ave.,
P. O. Box 3340
Calif., Gakland.—Thomas A. Short Company, 3430 Wood Street
Calif., Coxnard.—Power Tractor Co., 2262 N.
Oxnard Blvd.
Calif., Redding.—Shasta Truck & Equipment Sales Co., So. 99 Hwy. Phone 47
Calif., Sacramento.—In dustrial Tractor
Sa es, 903 Del Paso Blvd. WA 5-8525
Calif., San Despo.—Construction Machinery
Co., 2175 Newton Ave. BE 9-4143
Calif., San Diego—Construction Machinery
Co., 2175 Newton Ave. BE 9-4143
Calif., San Diego—Construction Machinery
Co., 1146 South Hwy. 101
Colo., Denver.—Power Equipment Co., 3440
Brighton Blvd. KE 4-4221
Colo., Landes.—Zachary & Peterson, 601 S.
Jason. SH 4-1311
Colo., Grand Junction.—Power Equipment
Co., 07 Chard Mesa, Hwy. 50. CH 3-0722
Idaho, Boise.—Southern Idaho Equipment
Co., 07 Boise, Inc., 204 East Myrtle. Phone
3-6409
Idaho, Idaho Falls.—Falls Tractor & Equt.

Co. of Boise, Inc., 204 East Myrtle. Phone 3-449
Idaho, Idaho Falls—Falls Tractor & Eqpt. Co., 805 West Broadway
Idaho, Idaho Falls—Southern Idaho Equipment Co., 2205 No. Yellowstone Hwy. JA 2-0660
Mont., Billings—Seitz Machinery Co., 420 No. 24th St. Phone 2-2103
Mont., Missoula—Mountain Tractor Co., 1645 W. Broadway. Phone 6-6651
Mont., Kalispell—Mountain Tractor Co., Third Ave. E. & R.R. SK 6-4388
Nev., Elko—A-D Machinery Co., 251 W. Commercial St. RE 8-3103
Nev., Las Vegas—A-D Machinery Co., Inc., 3463 So. Highland Dr. DU 4-0411
Nev., Reno—Teno Equipment Sales Co., 1510 W. 4th St. FA 2-7025
N. Mex., Albuquerque—Harry Cornelius Co., 1510 Second St., N. W. Phone 3-1776
Ore., Medford—Haupert Tractor Co., 3610
No. Pacific Hwy. SP 3-5383
Ore., Portland—Hamilton Engine Sales, Inc., 2580 N. W. Rest.

Ore., Portland — Hamilton Engine Sales, Inc., 2580 N. W. Upshur Street

ore., Portland — Wood Tractor Co., 5241 Northeast 82nd Ave. AT 8-5521 Ore., Springfield—Timber Tractor Co., 2600 Main St. RI 6-4411

Utah, Salt Lake City—Cate Equipment Co., 49 E. Ninth St. So. EL 9-2021
Utah, Salt Lake City 15—Midwest Service & Supply Co., 1333 South Main Street
Wash., Seattle 4—Materials Handling Eqpt.
Co., Inc., 2963 - 1st Avenue South

Wash., Seattle 4—Yukon Eqpt., Inc., 327 Colman Building

Wash., Seattle—Pacific Hoist & Derrick Co., 3200 Fourth Ave., So. EL 1860
Wash., Spokane—American Machine Co., 1026 W. Broadway. FA 2591
Wash., Spokane—Bader Machinery Company, 1511 East Sprague

Wyo., Casper — Studer Tractor & Equipment Co., Box 779. Phone 2-5381

Canada, Vancouver 9, B.C.—National Machy. Co. Ltd., Granville Island

ALLOY WIRE BELT CO., 226 Phelan Ave., San Jose 12, Calif. CY 5-7762

Representatives
Calif., Oakland — Bay City Iron Works,
Fourth & Washington St. HI 4-1092
Calif., South Gate — Power Transmission
Equipment Co., 4501 Firestone Blvd. LO
4-2551
Idaha Boica Washington Idaho, Boise—Western Bearing, Inc., 520
 Front St. Phone 2-6583

ALL-STATE ENGINEERING CO., INC., 7050 No. 76th St., Milwaukee 18,

Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, handpower traveling overhead, I beam overhead, monorail overhead), Stackers (crane), Trolleys.

Calif., Los Angeies — Utility Supply Co., 2852 Supply Ave. RA 3-9111 Calif., Oakland—Brose Co., 414 Santa Clara Ave. TE 2-4873 Calif., Redwood City — Peninsula Associates, 1345 Hancock St. EM 9-1226 Colo., Denver — King & East Machinery Corp., 2050 Bryant St. GE 3-6413

ALSOP ENGINEERING CORP., Milldale, Conn.

Agitators, Filters, Mixers, Pumps (liquid handling), Tanks (stainless pharmaceutical).

Representatives

Calif., La Mirada — R. A. Roosevelt Co.,
P. O. Box 236. RA 3-3510

Ore., Portland — Great Western Chemical
Co., 2133 N. W. York St. CO 6-2451

Wash., Seattle—D. B. Smith Co., 1016 First

Ave. So. MU 2-5086

ALVEY CONVEYOR MFG. CO., 9301 Olive St. Rd., St. Louis 24, Mo.

Engineered conveyor systems, Pallet loaders and unloaders, Vertical lift conveyors, Roller, belt, apron, pusher bar, spiral and slot conveyors, Package handling specialties.

Representatives
Calif., Los Angeles—Robert H. Braun Co., 5519 Jillson St. RA 3-6381
Calif., South San Francisco — Hamerslag Equipment Co., 110 Freeway Blvd. JU 6-1789
Colo., Denver—Edwin F. Deline Co., 224
W. Alameda. RA 2-2803
Ore., Portland—McMahon Bros., Inc., 921
S. W. Oak St. CA 8-6878
Wash., Seattle — F. T. Crowe & Co., 329
Second Ave. W. AT 4-8484

AMERCON CORP., see ALDEN EQUIPMENT DIV.

AMERICAN BILTRITE RUBBER CO., INC., see BOSTON WOVEN HOSE & RUBBER CO.

AMERICAN CHAIN & CABLE CO., see also WRIGHT HOIST DIV.

AMERICAN CHAIN DIV., AMER-ICAN CHAIN & CABLE CO., INC., 454 E. Princess St., York, Pa.

Calif., Los Angeles—6800 E. Acco St. RA 3-9751 Calif., San Francisco—890 Tennessee St. MI 7-4640

See advertisement on page 157

Colo., Denver—4555 E. 46th St. FR 7-8807 Ore., Portland—2210 N. W. Roosevelt. CA

AMERICAN CRANE & HOIST CORP., 8660 Atlantic Ave., South Gate,

Cranes (gantry, hand power, jib, pillar, swing, double beam overhead, electric and electric traveling overhead, hand power traveling overhead, hand power traveling overhead, beam overhead, monorail overhead), Hoists (air, chain, crane, drum, electric, hand, monorail, traveling).

AMERICAN ENGINEERING CO., Wheatsheaf Lane and Sepviva St., Philadelphia 37, Pa.

Electric wire rope hoists for use on Industrial bridge cranes and monorail systems, Railroad car pullers, Marine winches, Windlasses, Steering

Calif., San Francisco — Elder & Co., 333 Seventh St. UN 1-5480 Calif., Wilmington — Cordes Bros., 305 W. F St. TE 5-3197 Ore., Portuand—F. E. Bennett Co., 426 N. W. Sixth Ave. CA 8-2321 Wash., Seattle—Charles Ind. Sales Co., 5201 1st Ave. So. LA 6010

AMERICAN HOIST & DERRICK CO.,

63 So. Robert St., St. Paul 7, Minn. Chain fittings, Cranes (gantry, crawler, truck, loco-motive), Hoists (crane, derrick, drum, electric, gas-oline), Loaders and Unloaders (portable, self-pro-pelled), Sling fittings, Wire Rope Fittings.

Wash., Seattle—4975 Third Ave., So. MO

Wash., Seattle—4975 Third Ave., So. MO 9300

Representatives
Calif., Los Angeles—Cook Bros. Construction Machinery, 3332 San Fernando Rd. CL 6-3151
Calif., Oakland—Cook Bros. Truck & Equipment, 416 E. Eighth St. GL 1-025 Colo., Denver—Constructors Equipment Co., Inc., 3811 Walnut St. AL 5-3474
Idaho, Boise—G-K Machinery Co., 5200 Federal Way. Phone 4-5593
Mont. Billings—Hall-Perry Machinery Co., 902 Central Ave. Phone 6-6864
Ore., Portland—Hamilton Engine Sales, Inc., 2580 N. W. Upshur St.
Utah, Sait Lake City—Parker Equipment Co., 29 E. Second So. DA 2-1026
Wash., Seattle—A. H. Cox & Co., 1757 First Ave. So. MA 2-1121
Wash., Spokane—Ferris Equipment Co., 100, 3823 E. Trent Ave. KE 5-1551

AMERICAN LIQUID GAS CORP., 1109 Santa Fe Ave., Los Angeles 21, Calif. MA 7-0845

LP-gas carburetion equipment, LP-gas plants, LP-gas service stations.

San Francisco — Hearst Bldg. GA Calif., 5

AMERICAN MACHINE WORKS, INC., 1320 Clark St., Racine, Wis.

Electric wire carton stitchers, Preformed carton staplers and staples.

Representatives
Calif., Los Angeles—Cal-State Distributor,
8928 So. Figueroa. PL 2-7141
Colo., Denver—Empire Staple Co., 1406 16th
St. MA 3-6752 St. MA 3-6752 Ore., Portland—A & W Sales, 2251 No. Interstate. AT 8-5941 Wash., Seattle—Prime Co., 4110 Airport Way. MA 4-2820

AMERICAN METAL PRODUCTS CO., 5959 Linsdale Ave., Detroit 4, Mich.

Storage racks (pallet, skid, drum, barrel, tool and die, adjustable, stationary), Drive-in and drive-through racks, Tiering racks, Portable racks.

Representatives
Calif., Los Angeles—McKinley Equipment
Co., 1557 Esperanza St. AN 9-0567
Calif., San Francisco — Hamerslag Equipment Co., 110 Freeway Blvd. JU 6-1789
Colo., Denver—Plant Equipment Co., 1400
Market. AL 5-5411
Ore., Portland — McMahon Brothers, Inc., 204 Fitzpatrick Bldg.
Utah, Salt Lake City—Business Engineers, Inc., 476 E. So. Temple. EM 3-5888

AMERICAN MONORAIL CO., 13117 Athens Ave., Cleveland, Ohio

Conveyors (continuous flow, foundry, overhead, trolley), Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead,

hand power traveling overhead, monorail ever-head), Hoists (monorail), Scales (monorail), Tractors (monorail), Trolleys, Continuous trolley driven eee-veyors manufactured by Landahl Conveyor Ca., division (some Western distribution).

Calif., Compton—2310 No. Alameda St. NE 6-8127

o-5124

Ariz., Phoenix.—Kistier Industrial Service, P. O. Box 1204. AL 8-7196

Calif., San Francisco — Grover Engineers, 44 McLea Ct. MA 1-2668

Ore., Portland — McMahon Brothers, Inc., 204 Fitzpatrick Bldg. CA 8-6878

Utah, Salt Lake City.—Modern Equipment Co., 52 W. Second St. So. EL 9-2171

Wash., Seattle — F. T. Crowe & Co., 325

Second Ave. W. MU 8484

AMERICAN MONORAIL CO., CON-VEYOR DIV., Fourth & Franklin, Tipp City, Ohio

Conveyors (overhead).

Compton — 2310 No. Alameda. NE

8-6580

Representatives

Ariz., Phoenix.—Kistler Industrial Service, 902 So. Central Ave. AL 8-7196

Calif., San Francisco.—Grovers Engineers, Inc., 44 McLea Ct. MA 1-2668

Colo., Denver—J. H. Dorough Co., 7825 W. Colfax Ave. BE 7-2925

Ore., Portland—McMahon Bros., Inc., 921

S. W. Oak St. CA 8-6878

Utah, Satt Lake City.—Modern Equipment Co., 52 W. Second St. So. DA 2-5887

Wash., Seattle—F. T. Crowe & Co., Inc., 329 Second Ave. W. MU 8484

AMERICAN PULLEY CO., 4204 Wissahickon Ave., Philadelphia 29, Pa. Hand trucks, Platform trucks, Skid and pallet lift trucks, Fork trucks, Portable elevating trucks, Wheels, Wedgbelt drives, Bucket elevator pulleys, trucks, Fork Wheels, Wed Motor bases.

Calif., Los Angeles—1238 So. Atlantic Blvd. Calif., Oakland—G. P. Weishaar, 800 - 51st Ave. AN 1-9681

Representatives
Calif., Los Angeies—Maltby Co., 1940 E.
Figueroa St. RI 7-5611
Calif., Oakland—G. P. Weishaar, 800 51st
Ave. AN 1-9681
Ore., Portland — Northwest Chins &
Sprockets, Inc., 31 N. W. 1st Ave. CH 8-3367 Wash., Seattle—The Houston Co., Rm. 14, No. Annex, Boeing Field. PA 5-7990 Wash., Seattle—Northwest Chain Sprock-ets, Inc., 3628 E. Marginal Way. MA 8629

AMERICAN SISALKRAFT CORP., 55 Starkey Ave., Attleboro, Mass. Reinforced papers for industry.

Calif., Los Angeles — 4632 W. Washington Blvd. WE 1-1051 Calif., San Francisco—55 New Montgomery St. GA 1-7106 Wash. Seattle, 4452 Wash., Seattle—8403 Greenwood Ave. SU

ANTHONY CO., Streator, III. Cranes (trucks), Lift gates, Hoists (hydraulic), Truck

and trailer bodies. Representatives

Ariz., Phoenix—Auto Safety House, 4343 E. Washington.
Calif., Fresno—C & C Trailer & Body Co., 2544 So. Cherry Ave.
Calif., Los Angeles—Lambert Co., 1202 E. Olympic Blvd.
Calif., San Leandro—C & C Trailer & Body Co., 300 San Leandro Blvd.
Calif., West Sacramento—C & C Trailer & Body Co., 2640 Capitol Ave.
Colo., Denver—Winter-Weiss Co., 2201 Blake St. Colo., Denv Blake St. Blake St.
Idaho, Boise — Dyson's Truck Equipment
Co., Highway 44 and Pierce Park Lane,
Rt. 1
Mont., Billings—Seitz Distributing Co., 503
No. 25th St. Phone 2-2103
No. 25th St. Phone 2-2103
No. Second St.
Ore., Portland—Northwest Chains &
Sprockets, Inc., 31 N.W. First Ave. CA
8-3367
Ore., Portland — Northwest Truckstell
Sales, Inc., 835 S. E. Hawthorne Blvd.
Utah, Salt Lake City—Utah Truck Equipment Co., 1045 So. Main St.

ARCADIA MFG. CO. - BARBER-GREENE CO.

Wash., Seattle — Nelson Truck Equipment Co., 128 Westlake Ave. No. Wash., Spokane — Critzer Equipment Co. E. 3804 Front St. Wyo., Casper—Western Equip. Co., 3100 E. Yellowstone Hwy.

ARCADIA MFG. CO., 30 Santa Clara St., Arcadia, Calif. HI 6-6118

Light lift trucks and stackers, Carts (welding, exygen), Custom work machine and welding, Delivery

ARNOLD DRYER CO., DIV. of HEIL CO., 3000 Montana St. W., Milwaukee, Wis.

Dehydrators for feed, food and fiber.

Branches
Calif., Los Angeles—2999 W. Sixth St.
Wash., Seattle—708 Fifth Ave. So.

Representatives
Calif., San Francisco—Hell Equipment Co. of No. Calif., 999 16th St.
Calif., San Francisco—Robert H. Pulford Co., 24 California St.
Colo., Denver—Colorado Machinery & Supply Co., 4407 E. 60th Ave.
Ore., Portland—Reidd Strutt Co., Inc., 1015 S. E. Stark St.
Wash., Seattle—Reidd Strutt Co., Inc., 2212 First Ave. So.

ARO EQUIPMENT CORP., Enterprise & Trevitt Sts., Bryan, Ohio Hoists (air).

Calif., Los Angeles—3141 So. Grand Ave RI 7-7531

Calif., San Mateo—Cy Erb, 6 So. Bay-shore Rd. DI 2-6329 Wash., Seattle—Ray H. Weigel, 2 Hanford St. MA 4-1620

ARROW PRODUCTS, INC., So. Ferry St., Grand Haven, Mich.

Conveyors (belt, gravity roller, live roller, portable, skate), Rollers (conveyor), Ladders (safety step).

Representatives
Calif., Los Angeles — M. E. Canfield Co.,
419 E. Third St. MA 6-6606
Calif. Oakland—E. C. Buehrer Assoc., Inc.,
253 Fourth St. TE 6-2082
Colo., Denver — Joe Coursey Equipment
Co., 3325 Brighton Blvd. AC 2-9581
Ore., Portland — Oregon Handling Equipment Co., 2949 N. W. St. Helens Rd. CA
8-4196
Utah, Salt Lake City.

8-4199 Utah, Salt Lake City — Arnold Machinery Co., Inc., 433 W 2nd So. DA 2-5631 Wash., Seattle — Cascade Handling Equipment Co., 1741 1st Ave. So. MA 7069

ATLAS CHAIN & MFG. CO., Box 708, W. Pittston, Pa.

Roller chains and sprockets.

Representatives
Calif., Los Angeles—R. & J. Dick Co., 5276
Atlantic Ave.
Calif., San Francisco — R. & J. Dick Co.,
510 Bryant St.
Colo., Denver — Herbert Fryer, 1321 Ban-510 Bryans C.
Colo., Denver — Herbert Fryes,
nock St.
Ore., Portland—R. & J. Dick Co., 716 N. E.
Third Ave.
Wash., Seattle—R. & J. Dick Co., 307 Maritime Bidg.

AUTOMATIC TRANSPORTATION CO., 101 W. 87th St., Chicago 20, 111.

Fork, ram, platform trucks in rider, narrow aisle and walkie types; Die handlers; Attachments; Hand

Representatives
Calif., Huntington Park — L. J. Lutz Co.,
7962 Salt Lake Ave. LU 8-5102
Calif., Oakland—E. C. Buehrer Assoc., Inc.

See advertisement on page 21

253 Fourth St. TE 6-2082 Ore., Portland — Hallidie Machinery Co., 1915 N. E. Union Ave. AT 2-2244 Wash., Seattle—Hallidie Machinery Co., 210 Hudson St. LA 9520 Wash., Spokane—2603 N. Division St. FA 7-9581

AURORA EQUIPMENT CO., see EQUIPTO DIV.

AURORA PUMP DIV., NEW YORK AIR BRAKE CO., 619 Loucks St., Aurora, III.

Pumps (turbine type, condensate return, air conditioning, cooling tower, industrial-sump).

Distributors

Distributors

Ariz., Phoenix—Salt River Pump & Supply Co., 2846 Grand Ave. AL 3-3526
Calif., Los Angeles — Westco Pump Sales Co., 4621 Sheila St. AN 2-1155
Calif., San Francisco—Westco Pump Sales Co., 85 Industrial St. VA 6-5104
Colo, Denver—G. M. Wallace & Co., Denham Bldg. AM 6-0386
N. Mex., Albuquerque — Boyd Ind. Eng Co., 112 Granite N. W. CH 3-2247
Ore., Portland—E. V. Benson Co., 4240 N. E. 37th Ave. AT 2-9589
Utah, Salt Lake City—Nickerson Pump & Mach. Co., 158 W. Fourth So. EM 4-1939
Wash., Seattle — Bernard Wills Co., 622
Western Ave. MA 4-7160

AUSTIN-WESTERN DIV., BALDWIN-LIMA-HAMILTON CORP., 601 No. Farnsworth Ave., Aurora, III.

Self-propelled and truck-mounted hydraulic cranes.

Representatives

Representatives

Representatives

Ariz., Phoenix — Western Machinery Co., 820 No. 17th Ave. AL 8-8531
Calif., Los Angeles — Smith - Booth - Usher Co., 2001 Santa Fe Ave. TR 6911
Calif., San Francisco — Edward R. Bacon Co., Folsom and 17th St. HE 1-3700
Colo., Denver—MacDonald Equipment Co., 5300 Colorado Blvd. AM 6-2641
Idaho, Boise — Engineering Sales Service. Inc., 410 Capitol Blvd. Phone 3-2535
Mont., Billings—Hall-Perry Machinery Co., 902 Central Ave. Phone 6-6864
Mont., Butte — Hall-Perry Machinery Co., 812 E. Iron St. Phone 2-2323
Mont., Great Falls—Hall-Perry Machinery Co., 116 Fifteenth St. No. GL 2-8521
Mont., Missoula — Hall-Perry Machinery Co., 116 Fifteenth St. No. GL 2-8521
Mont., Missoula — Hall-Perry Machinery Co., 127 E. Main St. Phone 9-2617
Nev., Reno—Graid Equipment Co., 5th & No. Wells. FA 9-0456
N. Mex., Albuquerque—N. C. Ribble Co., 1304 No. Fourth St. Phone 3-3733
Ore., Portland—Columbia Equipment Co., 2300 So. Main St. IN 6-8668
Wash., Seattle—Columbia Equipment Co., 5030 First Ave. So. LA 1530
Wash., Spokane—Columbia Equipment Co., No. 1007 Freya St. KE 4-1581
Wyo., Casper — Keremi Tractor & Equipment Co., 703 W. 17th. Phone 8-8922

AUTOQUIP CORP., 1140 So. Washtenaw, Chicago 12, III.

Dock boards, Elevators (portable tiering), Hoists (hydraulic, portable), Platforms (loading), Ramps (loading), Tables (elevating, portable).

Representatives

Calif., San Francisco—P. F. O'Donnell Co., 2298 Jerrold Ave.
Calif., San Francisco—Ed Ottsman & Sons, 536 Sansome St.
Calif., San Jose — Eastmen Mfg. Co., 571 Park Ave.
Colo., Denver—Murray Sales Co.

BAKER INDUSTRIAL TRUCKS, A DI-VISION OF OTIS ELEVATOR CO., 800 Baker Ave. N.W., Cleveland 2,

All types of power industrial trucks (gasoline, electric, diesel and gas electric), Platform trucks, Cranes, Gas, Diesel and Electric Traveloaders (side loading fork truck).

Calif., Los Angeles — 2417 Beverly Blvd. DU 1-1151

Representatives

Calif., Los Angeles—Green-Penny Co., 4180 E. Noakes St. AN 8-3321 Calif., San Francisco—Elder & Co., 333 Seventh St. UN 1-5480 Colo., Denver—Edward F. Taylor Co., 1237 Shoshone St. TA 5-1327

Ore., Portland — Oregon Handling Equipment Co., 2949 N. W. St. Helens Rd. CA 8-4196 Wash., Seattle—Mechanical Handling Co., 1401 W. Garfield St. GA 0200

BALDWIN-LIMA-HAMILTON CORP.,

So. Main St., Lima, Ohio Cranes (crawler), Mountings (wagon, truck).

Burlingame — 1452 Drake Ave. Di Calif., Burlingame — 1452 Diam.
3-8408
Calif., La Mirada—14120 E. Rosecrans Ave.
UN 3-5762
Wash., Seattle — 1932 First Ave. So. MA

Wash., Seattle — 1932 First Ave. So. MA
4-5420

Representatives
Ariz., Phoenix — Western Machinery Co., 820 No. 17th Ave. AL 8-8531

Ariz., Tucson—Western Machinery Co., 1111

W. St. Mary's Rd. MA 2-4777

Calif., Eureka — McGaraghan Supply Co., 529 Broadway. HI 3-0831

Calif., Los Angeles — Smith-Booth-Usher Co., 2001 Santa Fe Ave. MA 7-6911

Calif., Oakland — Bay Cities Equipment. Inc., 2792 Cypress St. TW 3-8313

Calif., Redding — Shasta Truck & Equipment Sales, So. 99 Highway. CH 3-1624

Calif., San Jose — Bay Cities Equip., Inc., 1178 W. San Carlos St.

Colo., Denver — Faris - Moritz Equipment Co., 5790 Colorado Blvd. AT 8-2684

(daho. Boise—Feenaughty Machinery Co., 600 Front St. Phone 2-4579

Nev., Reno — Reno Equipment Sales Co., 1304 No. Fourth St. Phone 3-3733

Ore., Portland — Feenaughty Machinery Co., 2304 No. Fourth St. Phone 3-3733

Ore., Portland — Feenaughty Machinery Co., 311 S. E. Belmont St. BE 2-2186

Utah, Salt Lake City—Western Machinery Co., 2300 So. Main St. IN 6-8668

Wash., Seattle — Evans Engine & Equip. Co., 4300 11th Ave. N. W. SU 3-8000

Wash., Spokane — Modern Machinery Co., E. 4412 Trent Ave. KE 5-1564

BALLYMORE CO., Lincoln & Garfield Aves., West Chester, Pa.

Rolling self-locking safety step ladders, Custom work platforms, Mobile access lifts, Hydraulic lift work platforms.

Representatives

Ariz., Phoenix — Kinney Materials Handling Co., 929 Grand Ave. AL 8-2778

Ariz., Phoenix — Labagh Equipment & Sales Co., 904 E. Camelback Rd. AM 5-0809 alif., So. San Francisco — Hamerslag Equipment Co., 110 Freeway Blvd. JU 6-1789

6-1789
Colo., Denver — Snyder Metal Equipment
Co., 2944 Larimer.
Ore., Portland—F. E. Bennett Co., 426 N.W.
6th Ave.
Wash., Seattle — Builders Spec., Inc., 3601
No. Greenwood. ME 3-4000

BANNER METALS, INC., 2959 Victoria St., Compton, Calif.

Designers and manufacturers of specialized material handling equipment, including baskets and pallet loaders.

Representatives

Ariz., Phoenix.—Nauman Lift Trucks, Inc., 522 East Henshaw Rd.

Calif., Fresno—Gray Lift, Inc., 1905 Mary St. AM 8-6256

Calif., San Francisco—Western Industrial Equipment Co. SU 1-0222

Ore., Portland — Air-Mac, 1111 So. East Grand Grand Utah, Salt Lake City—Arnold Machinery Co., 433 West 2nd South Wash., Seattle — Air-Mac, 3388 4th Ave. South. MU 2-3388

BARBER-GREENE CO., 400 No. Highland Ave., Aurora, III.

Portable and permanent belt conveyers and accessories, Bucket loaders and screens.

Calif., San Mateo — 2192 So. El Camino Real. FI 5-1679 Calif., Whittier — 1402 W. Hadley St. OX 9-1951

Representatives
Ariz., Phoenix — Road Machinery Co., 716
So. Seventh St. AL 8-7981
Ariz., Tucson — Road Machinery Co., 2601
So. Fourth Ave. MA 4-2539
Calif., Los Angeles — Santa Fe Equipment
Co., Inc., 3000 Santa Fe Ave. LU 1-9177

Caiif., San Francisco — Coast Equipment Co., 444 Eighth St. MA 1-5740 Colo., Denver — Booth-Rouse Equipment Co., 350 Kalamath St. MA 3-0165 Idaho, Boise — Engineering Sales Service, Inc., 410 Capitol Blvd. Phone 3-2535 Idaho, Pocatello — Engineering Sales Service, Inc., 256 No. Second Ave. Phone 5727

Mont., Billings — Western Construction Equipment Co., 505 No. 24th St. Phone 9-5501 Mont., Great Falls — Western Construction Equipment Co., 2322 River Dr. GL 3-1405 Nev., Reno — Sierra Machinery Co., Inc., 307 Morrill Ave. FA 3-1301 N. Mex., Albuquerque — Contractors' Equip. & Supply Co., 707 Broadway N. E. CH 3-3565

N. E. CH 3-3565
Ore., Portland — Columbia Equipment Co., 1240 S. E. 12th Ave. BE 2-7148
Utah, Salt Lake City — Lang Construction Equipment Co., 279 W. First St. DA 2-1241

2-1241
Wash., Seattle — Columbia Equipment Co., 5030 First So. LA 1530
Wash., Spokane — Columbia Equipment Co., 1007 N. Freya St. KE 4-1531
Wyo., Casper — Keremi Tractor & Equipment Co., 515 So. Elm St. Phone 3-6631
Wyo., Cheyenne — Keremi Tractor & Equipment Co., 703 W. 17th St. Phone 8-8922

BARRETT-CRAVENS CO., 630 Dundee Rd., Northbrook, Ill.

Lift trucks (hand, electric, low lift, high lift), Ele-vators (hand, electric, stationary, portable), Skids, Racks, Tractors (electric industrial, electronic ep-eratorless, radio remote control truck).

Representatives

Ariz., Phoenix—Kistler Industrial Service
Co., 902 So. Central Ave. AL 8-7196
Calif., Fresno — Valley Forklift Rental &
Equipment Co., 2424 So. Railroad Ave
AD 3-1255
Calif., Los Angeles—Irving G. King & Co.,
821 Mateo St. MA 6-5361
Calif., South San Francisco — Hamerslag
Equipment Co., 110 Freeway Bivd. JU
6-1789
Colo., Denver—King & Co.

6-1789

Colo., Denver — King & East Machinery Corp., 2050 Bryant St. GE 3-6413

Ore., Portiand—F. E. Bennett Co., 426 N. W. Sixth Ave. CA 8-2321

Utah, Salt Lake City—Arnold Machinery, 433 W. Second So. St. DA 2-5631

Wash., Seattle—Materials Handling Equipment Co., 2963 First Ave. So. MA 4-0997

Wash., Spokane—Standard Equipment Co., E. 2725 Sprague. KE 5-2014

BASSICK CO., 3045 Fairfield Ave., Bridgeport, Conn.

Casters, Wheels (general industrial, hand truck, rubber tired).

Calif., South San Francisco—124 So. Airport Blvd. JU 3-1740
Calif., Vernon—320 Fruitland Rd. LO 8-

Representative
Utah, Salt Lake City-E. C. Coffin Co., 1661
48th So. St.

BAUGHMAN MANUFACTURING CO., INC., Shipman Rd., Jerseyville, 111.

Conveyors (belt, bucket, foundry, portable, screw). Elevators (belt, bucket), Bulk feed bodies.

Representatives

Ariz., Marana—Marana Equipment, Inc.
Ariz., Phoenix — Guerin Implement Co..
1401 So. Central Ave.
Ariz., Phoenix—Superior Equipment Co.,
2402 So. 14th Ave. At. 3-2116
Ariz., Phoenix — Western Machinery Co..
124 E. Buchanan. Phone 3-4101
Calif., Lancaster—Robertson Implement
Co., 340 E. Ave. I
Calif., Los Angeles—Hurt Conveyor Co..
1415 Mateo St. TR 6408
Calif., Modesto—Hengst & Curran, P. O.
Box 323 Box 323

Cailf., Oakland—Mill Eng. & Mach. Co. 1022 Market St. TW 3-4967

Cailf., Riverside—Hudson Sales Co., 4905
Arlington Ave. Phone 1-1637

Cailf., San Leandro—Fabricated Metals. Inc., 2400 Merced St. EL 7-0220

Calif., Turlock—Lakeside Industries, Hwy. 99, So. Phone 2-1386

Olo., Denver—Edw. F. Taylor Machinery Co., 1237 Shoshone St. TA 5-1327

Colo., Denver—Western Machinery Co., 1004 Speer Blvd. TA 5-7151 Box

Colo., Greeley — Ellis & Capp Equipment Co., 508 Eighth St. EL 2-9i41 Idaho, Boise—Starline Equipment Co., 503 So. 16th St. Phone 4-3321 Mont., Billings—Industrial Equipment Co., 415 No. 27th St. Mont., Kalispell — Treasure State Equipment Co. Phone 158-L

N. Mex., Albuquerque—Construction Machinery Co., 2601 Second St. N. W. Ore., Amity—Burlingham Meeker Co. Ore., Portland — Douglas Hood Co., 1947 N. W. Overton. CA 2-9178

Utah, Sait Lake City—Williamson Body & Eq. Co., 1603 So. Sixth W. St. DA 2-5658

Utah, Sait Lake City—W. H. Pingree Co., 461 E. Second So. Sixth W. St. DA 2-5658

Utah, Salt Lake City—W. H. Pingree Co., 461 E. Second So. St. EM 3-6732

Wash., Seattle—Northern Commercial Co., 427 Colman Bidg. MU 2300

Wash., Seattle—Temco, Inc., 2405 11th St., S. W. EL 5743

Wyo., Casper — Studer Tractor & Equipment Co., 2350 E. Yellowstone Hwy. Phone 2-5381

BAYER, A. J., CO., 2300 E. Slauson Ave., Los Angeles 58, Calif.

Conveyors (apron, automatic, bag and bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, overhead, skate, slat, trolley, pallet, portable), Dock Boards, Elevators (barrel, package, etc.), Pulleys (conveyor), Ramps (loading), Conveyer Rollers, Conveying Tables, Conveyor Wheels.

Calif., Oakland—1131 Sixth Ave. TE 4-8571 Ore., Portland—80 S. E. Taylor. BE 6-6063

BEACON MACHINERY, INC., P. O. Box 188, East St. Louis 16, III.

Dock ramps (mechanical and hydraulic), Lift ta-bles, Automatic and semi-automatic palletizers and de-palletizers, Compression devices, Cantilever bridge lifts, Pallet stackers and dispensers, Port-able elevators.

Representatives

Ariz., Phoenix — De Naumann Lift Trucks, 2308 So. 11th St. AL 8-8951
Calif., No. Hollywood — Magesco, 7340
Radford Ave. ST 7-0838
Calif., San Francisco — Ira J. Perin, 575
Howard St. GA 1-1827
Colo., Denver — Case, 2855 W. Eighth. AL 5-3984
Ore., Portland — F. E. Bennett, 426 N. W. Sixth Ave. CA 8-2321
Utah, Salt Lake City — Equipment Supply Co., 16 Post Office Pl. EM 3-9074
Wash., Seattle — Material Handling Equipment Co., 2963 First St. SE 0997

BEAM PRODUCTS MFG. CO., 3040 Rosslyn St., Los Angeles 65, Calif. LP gas conversion equipment.

Ore., Portland—8989 S. E. McLaughlin Blvd. AL 4-0489

Representatives

Ariz., Tempe—Dana Butane & Equipment
Co., 402 W. 1st St. WO 7-2404
Calif., Anaheim—Harry I. Horn Co., 1251
No. Palm. KE 5-2173
Calif., Fresno — Butane Service, 1027 No.
Crystal. AD 3-7854
Calif., Fresno—Calor Gas Equip. Co., 1276
Wishon Ave.
Calif., Fresno—Cities Fuel Corp., P. O. Box
4048
Calif., Fresno—Paul J. Halana 4048 Calif., Fresno — Paul J. Holcomb & Son, 1420 No. Hughes Ave. AD 3-4956 Calif., Grass Valley—Glenbrook Gas Co., Rt. 1

Calif., Grass Valley—Glenbrook Gas Co., Rt. 1
Calif., Lancaster—Clark Mfg. Co., 44079 No. Sierra Hwy. WH 8-3238
Calif., Lemoore—Lemoore Service & Auto Supply, 41 E St.
Calif., Los Angeles — Butane Carburetor Service, 1206 E. Sixth St. MA 2-7771
Calif., Los Angeles—Imperial Gas Co., 3673
Ninth Ave. AX 4-5187
Calif., Modesto — J. S. West & Co., 709
Ninth St. Phone 5901
Calif., Pasadena — Glotane Corp., 250 No. Foothill Blvd. SY 6-8936
Calif., Pasadena — Glotane Corp., 250 No. Foothill Blvd. SY 6-8936
Calif., San Diego—Crowes Butane Equipment, 4777 Seminole Dr. 10 2-6653
Calif., San Diego—Crowes Butane Equipment, 4777 Seminole Dr. 10 2-6653
Calif., San Diego—San Diego Liquid Gas & Appl. Co., 3720 W. Camino Del Rio, CY 8-6691
Calif., San Francisco—California Gas Service, 240 Montgomery St. YU 6-6417
Calif., San Jose—Hennessey's Butane-Propane. 2030 So. First St. CY 3-5676, -7
Co'o., Denver — Gas Equipment Co., 1485
Brentwood. BE 3-2474

Mont., Billings — Power Transmission Equipment Co., 15 No. 33rd St. Phone 4-4185 N. Mex., Albuquerque—Alpha Engineering, 245 Woodward Rd. CH 2-8054 N. Mex., Roswell—Arrow Gas Corp., 1306 E. Second St. MA 2-8031 Ore., Eugene — Magic Gas & Appliance, 2810 W. Sixth St. DI 4-2283 Ore., Portland—Multnomah Fuel Co., 4700 S. W. Macadam. CA 8-0141 Utah, Salt Lake City — Rocky Mountain Gas Co., 1212 Beck St. DA 2-5878

BEAN, JOHN, DIV., FOOD MACHIN-ERY & CHEMICAL CORP., 1115 Coleman Ave., San Jose, Calif.

Pumps, Airline ground handling trucks and carts

BELT CORP., 5314 Mill St., Orient,

Conveyors (bag and bale, belt, chain or link, portable, gravity, roller).

Representatives
Calif., San Francisco—Hughdon Equipment
Co., 178 Townsend St.
Calif., South Gate—Western Material Handling Corp., Div. of American Crane &
Hoist Corp., 8660 Atlantic Ave.
Colo., Denver—Murray Sales Co., 16 Wazee
St.

Wash., Seattle—Temco Co., 101 Jones Bldg., 1331 Third Ave.

BELL & GOSSETT CO., see MARLOW PUMPS, A DIV.

BEMIS BRO. BAG CO., 408 Pine St., P. O. Box 113, St. Louis 2, Mo.

Bags (burlap, multi-wall, polyethylene, shipping), Packaging machinery, Paper specialties, Packaging

Branches
Phoenx—2202 W. McDowell Rd. AL 2-2222 Calif., San Francisco—1000 Sansome St. GA 1-2383 Calif., San Mateo, 456 Peninsula Ave. DI 2-0877 2-0877
Calif., Wilmington—920 E. Pacific Coast
Hwy. TE 5-3111
Colo., Denver—426 Guaranty Bank Bldg.
TA 5-6348
Idaho, Boise — 202 McCarty Bldg. Phone Idano, Boise — 202 McCarty Bidg. Phone 2-2192 Utah, Salt Lake City—1101 Walker Bank Bidg. DA 2-5591 Wash., Seattle—65 Atlantic St. MA 3-0660 Wash., Vancouver—1401 W. 26th St. OX 4-1523

BENNETT PUMP DIV., JOHN WOOD CO., Wood St. & Broadway, Muskegon, Mich.

Petroleum and air dispensing equipment.

Burlingame — 1864 Rollin Rd. OX Calif., Burlingame — 1864 Rollin Rd. OX 7-5376
Calif., Los Angeles — 3125 E. 12th St. AN 9-1189 9-1169 Colo., Denver — 1485 Boston St. PL 5-0212 N. Mex., Albuquerque — 2212 First St., N. W. CH 3-3766 Utah, Salt Lake City — 1077 So. Main St. DA 2-5525 Wash., Seattle - 926 12th Ave. EA 6655

BERGER ENGINEERING CO., 3236 16th Ave. S. W., Seattle 4, Wash.

Cranes (gantry, jib, double beam overhead, elec-tric and electric traveling overhead), Hoists (crane, derrick, drum, electric), Winches, Car pullers.

Representative
B. C., Vancouver—Berger Eng. Co., Ltd.,
547 W. Sixth Ave.

BETHLEHEM PACIFIC COAST STEEL CORP., 20th & Illinois Sts., San Francisco 19, Calif. MA 1-3200.

Wire Rope, Wire Rope Slings.

District Sales Offices
Ariz., Phoenix—213 No. 1st Ave. AL 4-7502
Calif., Los Angeles—6000 So. Boyle. LO
8-3041
Ore., Portland—1010 S. W. 14th Ave. CA
2-1841

Utah, Salt Lake City-455 E. Fourth So. EL 9-1837 Wash., Seattle—3651 E. Marginal Way. AV 1100 Wash., Spokane — West 725 Sprague. TE 8-3671

BIG JOE MFG. CO., Wisconsin Dells,

Elevators (portable tiering), Hoists (electric, hydraulic, portable), Stackers (portable, electric), Trucks (electric fork, hand-electric lift, hand-mechanical lift, jack-type, hydraulic lift, pallet, peper roll, sheet handling, skid handling, straddle, electric tiering, lift-foot operated).

Representatives

Ariz., Phoenix — Kinney Materials Hanling Equipment, Inc., 929 Grand Ave. AL

ling Equipment, Inc., 929 Grand Ave. AL 8-2778
Calif., Los Angeles — James P. Kinney Co., 3659 Whittier Blvd. AN 9-7411
Calif., San Diego — Winn Supply Co., 1676
Main. BE 3-3106
Calif., San Francisco 5 — Big Joe of California, 48 Second St. YU 2-9720
Calif., South Gate — Cost Reduction Equipment Co., 5200 Chakemeo. LO 7-2487
Colo., Denver 4 — Joe Coursey Equipment Co., Inc., 3327 Brighton Blvd. AC 2-9881
Ore., Portland 14 — Air Mac Inc. of Oregon, 1111 S. E. Grand Ave. BE 4-6524
Utah, Salt Lake City 15 — Materials Handling Engineers, Inc., 334 W. 17th S. IN 7-4871
Wash., Seattle — Air Mac Inc. of Washington, 3338 Fourth Ave. MU 2-3388
Wash., Spokane 2 — Air Mac Inc. of Washington, E. 3710 Trent Ave. KE 0561
Wash., Yakima — Air Mac Inc. of Washington, 313 No. Grandview. YA 2-1552

BLACKMAN PLASTICS, INC., 3125 So. La Cienega Blvd., Los Angeles 16, Calif.

Boxes for shipping (formed plastic), Tote boxes.

BLACKMER PUMP CO., 1809 Century S. W., Grand Rapids 9, Mich. Pumps (liquid handling).

San Francisco-605 Third St. YU

BODINSON MFG. CO., 2401 Bayshore Blvd., San Francisco 24, Calif. JU 5-9641

Car pullers, Conveyors (apron, belt, bucket, drag, flight, portable, slat), Elevators (barrel, package, belt, bucket), Pulleys (conveyor), Tables (conveying), Idlers (conveyor), Rollers (conveyor).

BOMAN CO., THE, 3316 E. Olympic Blvd., Los Angeles

Pneumatic tire lift trucks, Fork lift trucks, Hand trucks.

BORG-WARNER INDUSTRIAL CRANES, 1536 S. Paulina St., Chicago 23, III.

Cranes (gantry, hand power, jib, piller, swing, bracket, double beam overhead, electric and electric traveling overhead, broundry overhead, hand power overhead, traveling locomotive overhead, l-beam overhead, monorail overhead).

Representatives
Ore., Eugene—Air Mac, Inc., P. O. Box 652,
DI 2-2931 DI 2-2931
Ore., Portland — Air Mace, Inc., 1111 S.E.
Grand. BE 4-6524
Wash., Seattle—Air Mac, Inc., 3838 Fourth
Ave. So. MU 2-3388
Wash., Spokane—Air Mac, Inc., E. 3710
Trent. KE 5-2005

Wash., Spokale—Air Mac, Inc., E. 310 Trent. KE 5-2005 Wash., Tacoma—Air Mac, Inc., 1003 Wash-ington Bldg. BA 1605 Wash., Yakima — Air Mac, Inc., 313 No. Grandview. GL 2-1552

BORROUGHS MFG. CO., 3000 No. Burdick St., Kalamazoo, Mich.

Bins, Racks (storage), Shelving, Shop Equipment.

Representatives
Calif., Fresno—Healey & Co., 2302 Tulare
St. AM 8-6381
Calif., Los Angeles—Hart-Cobb-Carley, 2439
So. Yates Ave. RA 3-8851
Calif., Oakland — Wm. A. Gore, 1834 Adeline St. TW 3-7233

Calif., Sacramento—Paul W. Roeder Co., P. O. Box 1552. GI 8-8550
Calif., San Diego — Parron-Hall Corp., 2nd & C Sts. BE 9-0348
Colo., Denver — Sparkman - Barker, 421
Santa Fe Drive. KE 4-1328
Ore., Portland — Brower Co., 1633 N. W.
21st Ave. CA 8-3474
Utah, Salt Lake City — Business Engineers, Inc., 476 E. S. Temple. EM 3-5888
Wash., Seattle — Brower Co., 114 Virginia St. MU 2-0464
Wash., Seattle — Brower Co., 114 Virginia St. MU 2-0464
Wash., Seattle — Wm. A. Gore. 1732 First

Wash., Seattle — V St. So. MU 2-1251 Wm. A. Gore, 1732 First

BOSTON WOVEN HOSE & RUBBER CO., a div. of AMERICAN BILTRITE RUBBER CO., INC., P. O. Box 1071, Boston 3, Mass.

Belting (conveyor, elevator, endless).

Distributors

Ariz., Casa Grande—C & A Equipment Co., P. O. Box 267

Ariz., Phoenix—Astec Equipment Co. Ariz., Phoenix — Construction & Mining Supply Co., P. O. Box 6384

Ariz., Phoenix—Equipment Sales Co., 253

Techwood Dr., N. W.

Ariz., Prescott—Javapai Supply Co.

Ariz., Scottsdale—Yancey Sales, Inc., 64 W. Second St. Ariz., Prescott—Javapai Supply Co.
Ariz., Scottsdale—Yancey Sales, Inc., 64 W.
Second St.
Ariz., Tucson—Tucson Pipe & Supply Co.,
195 So. Tyndall
Calif., Los Angeles—Warren & Bailey Co.,
3528 So. Garfield Ave.
Calif., San Francisco—Gilmore Steel &
Supply Co., 340 Brannan St.
Calif., San Francisco—Gilmore Supply Co.,
321 Folsom St.
Calif., San Francisco—Tilley Mfg. Co., Inc.,
1161 Folsom St.
Colo., Denver—Midwest Rubber & Supply
Co., 710 W. Colfax Ave.
N. Mex., Albuquerque — Harry Cornelius
Co., 1510 Second St., N. W.
N. Mex., Carlsbad—Automotive & Industrial Supply, Inc., 310 So. Canyon St.
Ore., Portland—Goodyear Rubber & Asbestos Co., 205 N. W. Fifth Ave.
Utah, Salt Lake City — Mountain States
Rubber Co., P. O. Box 600
Wash., Seattle—Steam Supply & Rubber
Co., 123 Jackson St.
Wash., Spokane — Towne Equipment &
Supply, No. 622 Monroe St.

BOSWORTH MFG. CO., 34250 Mills Rd., Avon, Ohio

Conveyors (automatic, bag, bale, belt, chain or link, continuous flow, drag, flight, foundry, portable, vertical, magnetic), Elevators (bucket), Magnets, Tables, Pullays (conveyor).

nets, Tables, Pulleys (conveyor).

Representatives
Colo., Denver—Murray Sales Co., 16 Wazee
Market
Idaho, Boise—Arnold Machinery Co., Inc.,
5024 Gage St. Phone 2-1174
Idaho, Idaho Falis — Arnold Machinery
Co., Inc., 1265 W. Broadway. JA 3-0822
Mont., Billings—Lefler & Wyomont Supply,
224 Stapleton Bildg.
Mont., Missoula — Missoula Mercantile Co.
Ore., Portland — Oregon Handling Equipment, 2949 N. W. St. Helens Rd.
Utah, Salt Lake City — Arnold Machinery
Co., 433 W. Second So. St.
Wash., Seattle — Nelson Truck & Equipment, 128 W. Lake No.
Wash., Seattle — K. O. Pearson, 7202
Rainier Ave. Wash., Seattle Rainier Ave.

BRADY, W. H., CO., 727 W. Glendale Ave., Milwaukee 9, Wis.

Tape (printed roll), Markers (Individual self-stick-ing numbers and letters), Tags and labels.

Calif., Los Angeles — 923 E. 3rd St. MA 6-2896

Representatives

Ariz... Phoenix — Graybar Electric Co., 1700 No. 22nd Ave. AL 2-2371
Calif., Fresno — Graybar Electric Co., 101
Van Ness Ave. AD 7-4175
Calif., Glendale — Yates Products, 705 W.
Ivy St. CH 5-3678
Calif., Long Beach — Graybar Electric Co., 800 W. 16th St. HE 2-2911
Calif., Los Angeles — Electrical Specialty Co., 2820 E. 12th St. MI 1907
Calif., Los Angeles — Graybar Electric Co., 210 Anderson St. AN 3-7282
Calif., Oakland — Graybar Electric Co., 1911 Union St. GL 1-5451
Calif., Sacramento — Graybar Electric Co., 1900 Fourteenth St. GI 2-8976

Calif., San Bernardino — Graybar Electric Co., 655 H St. TU 9-1051
Calif., San Diego — Graybar Electric Co., 720 State St. BE 3-1361
Calif., San Francisco — Electrical Specialty Co., 158-168 11th St. HE 1-5116
Calif., San Francisco — Graybar Electric Co., 1750 Alameda St. MA 1-5131
Calif., San Francisco — Graybar Electric Co., 1376 N. 10th St.
Calif., Santa Ana—Graybar Electric Co., 1376 N. 10th St.
Calif., Van Nuys — Graybar Electric Co., 301 French St. KI 3-8390
Calif., Van Nuys — Graybar Electric Co., 15520 Cabrito Rd. ST 2-9600
Colo., Denver — Electrical Specialty Co., 2026 Arapahoe St. CH 4-4588
Colo., Denver —Graybar Electric Co., 104
Wazee Market. TA 5-7111
Idaho, Boise — Graybar Electric Co., 1325
Idaho St. BO 2-4501
Mont., Butte — Graybar Electric Co., 604
E. Aluminum St. BU 3233
Ore., Eugene — Graybar Electric Co., 2580
W. Broadway. DI 4-2224
Ore., Portland 5 — Electrical Specialty Co., 212 N. W. 14th Ave. CA 7-3188
Ore., Portland — Graybar Electric Co., Fark and Flanders Sts. CA 7-6641
Utah, Salt Lake City — Graybar Electric Co., 336 No. Third W. St. EL 9-8771
Utah, Salt Lake City — Electrical Specialty Co., 2588 Simpson Ave.
Wash., Seattle — Electrical Specialty Co., 2406 First Ave. So. EL 8061
Wash., Spokane — Graybar Electric Co., 1033 W. Gardner Ave. FA 7-6611
Wash., Spokane — Graybar Electric Co., 212 St. MA 0164

BRODERICK & BASCOM ROPE CO.

BRODERICK & BASCOM ROPE CO., 4203 Union Blvd., St. Louis 15, Mo.

Slings (wire rope), Wire Rope

Calif., Los Angeles — 2441 Hunter St. MA 7-2957 Calif., San Francisco — 44 Potrero Ave. UN 3-3567 Ore., Portland — 1518 N. W. Marshall. CA 7-2244 7ash., Seattle — 655 Edmunds St. MA 2-1600

(Represented by distributors throughout all Western States.) Factory at Seattle,

BRONCO PRODUCTS CO., 717 Stanford at 7th, Los Angeles Solid tired wheels, Magnesium loading ramps.

BRUMMELER STEEL PRODUCTS CORP., 1750 Alpine Ave., N. W., Grand Rapids, Mich.

Corrugated parts boxes, Pallets, Skids, Pallet racks, Dump hoppers.

Representatives

Ariz., Tucson — F. Ronstadt Hdw., P. O. Box 5138

Calif., Los Angeles — Colson Equipment & Supply, 1317 Willow St.

Calif., San Francisco — Hamerslag Equipment Co., 45 Elmira at Industrial

BUCYRUS-ERIE CO., South Milwaukee, Wis.

Cranes (yard, truck, tractor).

Branches
Calif., Los Angeles — 530 W. Sixth St. MA
9642
Calif., South San Francisco — 120 Freeway
St. PL 5-7436
Wash., Seattle — 4447 White-Henry-Stuart
Bldg. MA 6424

Wash., Seattle— With the Henry-Stuart Bidg. MA 6424

Ariz., Phoenix — Road Machinery Co., 716
So. Seventh St.
Calif., Bakersfield — Crook Co., 2314 No. Chester
Calif., Berkeley — West Coast Engine and Equipment Co., 1055 Eastshore Hwy.
Calif., Los Angeles — Crook Co., 2900 Santa Fe Ave.
Colo., Denver — Colorado Builders Supply Co., 153† Blake St.
Idaho, Boise — Intermountain Equipment Co., Broadway at Myrtle St.
Idaho, Pocatello — Intermountain Equipment Co., 210 No. Fourth Ave.
Mont., Billings — Great Northern Tool & Supply Co., P. O. Box 957

Mont., Kalispell — Westmont Tractor Co., 150 R. Spruce St.

Nev., Reno — Sanford Tractor & Equipment Co., No. Valley Rd.

N. Mex., Albuquerque — R. L. Harrison Co., 1801 Fourth St. N. W.
Ore., Portland — Clyde Equipment Co., 1631 N. W. Thurman St.
Utah, Sait Lake City — Lang Construction Equipment Co., 267 W. First So. St.
Wash., Seattle — Clyde Equipment Co., 3410
First Ave. So.
Wash., Spokane — Intermountain Equipment Co., E. 611 Sprague Ave.

BUFFALO WEAVING & BELTING CO., 260 Chandler St., Buffalo 7,

Conveyor belting (cotton, rubber, Plastex), Slings (woven cotton).

Calif., Pasadena — 1730 Homet, SY 2-4038

Representative
Calif., Los Angeles — Lacal Co., Inc., 5931
Avalon Blvd.
Calif., Los Angeles — Pacific Mill & Mine
Supply Co., Inc., 2338 E. Eighth St.
Calif., Los Angeles — Rubberite Corp., 1121
E. 60th St. AD 1-2104
Calif., Los Angeles — Western Belting &
Mechanicals, Inc., 3525 E. Emery St.
Calif., San Francisco — Gilmore Steel &
Supply Co., 840 Brannan St.

BULLDOG PALLET CO., Haley Rd., P. O. Box 547, Newark, Calif. Bins, Pallets, Pallet Shook, Pallet and box nails

BUMPERS, INC., 2534 Detroit Ave., Cleveland 13, Ohio

Rubberdock bumpers for loading docks.

Representatives
Calif., Oakland—Industrial Service Co., 618
McClary St. LO 9-2545
Calif., San Francisco — Hamerslag Equip.
Co., 110 Freeway Blvd. JU 6-1789
Colo., Denver—Plant Equipment Co., 1400
Market St. AL 5-5411
Ore., Portland—Air-Mac, Inc. of Oregon,
1111 S. E. Grand Ave. BE 4-6524
Wash., Seattle—Air-Mac, Inc., 3838 Fourth
Ave. MU 2-3388

BURLINGTON FABRICATORS, INC., Burlington, N. J.

Drive-in pallet racks.

Ore., Portland - Air-Mac, Inc., 1111 S. E. Wash., Seattle — Air-Mac, Inc., 3838 Fourth Ave. So.

BUSCHMAN, E. W., CO., THE, 4537 Clifton Ave., Cincinnati 32, Ohio

Conveyors (apron, autometic, bag and bale, belt, chain or link, dreg, flight, foundry, gravity roller, live roller, overhead, pallet, portable, skate, slat, trolley, special).

Representatives

Ariz., Phoenix — Kistler Industrial Service, 902 S. Central Ave.
Calif., Alhambra — Geo. M. Prescott Co., 825 So. Fremont Ave. CU 3-6543
Colo., Denver—Landes, Zachary and Peterson, 601 S. Jason St. SH 4-1311. (Serves N. Mex. and Wyo.).

BUTLER MFG. CO., SPECIAL PROD-UCTS DIV. and BUILDING DIV., 7400 E. 13th St., Kansas City, Mo. Racks (pallet).

Calif., Richmond — So. 27th and Butler, EN 1-1001
Calif., South Gate — 4014 Firestone Blvd. LO 7-2303

C & D BATTERIES, INC., Washington and Cherry Sts., Conshohocken, Pa. Batteries and chargers for electric industrial trucks.

Ariz., Phoenix — 213 N. 1st Ave. AL 4-1383 Calif., La Jolla — 722 Fern Glen. GL 4-6757 Calif., Los Angeles — 1014 Venice Bldg. RI 9-4471 Calif., San Francisco — 324 Fifth St. SU

Colo., Denver — 1732 Blake St. CH 4-1102 Ore., Portland — 208 S. W. Stark St. CA 8-9211

0-9211 Wash., Spokane — E. 125 Mission St. FA 5-5379

CADY METAL FABRICATING CO., 88 Schenck St., North Tonawanda,

Pallet lifters for crane handling of palletized materials, coil lifters for crane handling of coil stock.

Representatives
Calif., Los Angeles — Stanley E. Morris
Co., 5584 Alhambra Ave. CA 1-5148
Calif., San Francisco—P. F. O'Donnell Co.,
2298 Jerrold Ave. AT 8-6382

CAMBRIDGE WIRE CLOTH CO., Cambridge, Md.

Baskets (metal, wire, heat treating), Belting (wire), Conveyors (woven wire), Slings (woven wire).

Calif., San Francisco — 420 Market St. YU 6-4503

CAMPBELL CHAIN CO., Norway & Elm Sts., York, Pa.

Chains, Slings (chain).

Calif., Alvarado
Calif., Los Angeles—2960 Leonis Blvd.
Calif., So. San Francisco—196 Freeway
Ore., Portland—3085 N. W. Front St.
Utah, Salt Lake City—230 So. Fourth W.
Wash., Seattle—6901 E. Marginal Way.

Wash., Seattle—6901 E. Marginal Way.

Representatives
Calif., Alhambra — Herman Froelich, 1105 So. Cordova St.
Calif., Los Altos—Leonard Woods, 680 Templebar Way.
Calif., Los Angeles—Peter Homburg, 1561 W. 111th Pl.
Calif., Menlo Park—Leland M. Lenneville, 211 Oakhurst Pl.
Calif., San Mateo—M. G. Leffingwell, 244 Villa Terrace
N. Mex., Albuquerque—A. E. Vincent, 3917 Thaxton Ave., S. E.
Ore., Portland — Byron Glad, 1511 N. E.
45th St. Thaxton Ave, S. E.
Ore., Portland — Byron Glad, 1511 N. E.
45th St.
Utah, Salt Lake City—J. H. Nicodemus, 230
So. Fourth W.
Wash., Seattle—W. H. Hendricksen, 1622 E.
195th St.
Wash., Seattle — Walter Jacobs, 3631 59th
Ave. S. W.
Wash., Seattle — G. T. Knott, 2825 S. W.
170th St.

CAPCO CANVAS PRODUCTS CO., 622 Prospect Ave., Kansas City 23,

Dock covers.

Representatives
Calif., San Francisco — Western Industrial
Equipment Co., 420 Market St. SU 1-0222
Colo., Denver — Joe Coursey Equipment
Co., 3327 Brighton Blvd. AC 2-9581

CARGOTAINER DIV., TRI-STATE ENGINEERING CO., 295 W. Beau St., Washington, Pa.

Cargotainers (wire mesh containers for handling industrial materials).

Representatives x — Utilities Supply Co., 419 Representatives
Ariz., Phoenix.— Utilities Supply Co., 419
So. Seventh St.
Calif., San Francisco—J. A. Old & Son, 325
Fifth Ave. SU 1-1100
Calif., Torrance — Meyer & Williams Co.,
22900 Frampton Ave.
Utah, Salt Lake City—Utah Lumber Co.,
P. O. Box 2398
Wash., Seattle—Burleigh Co., 5245 Pullman
Ave.

CARRIER CONVEYOR CORP., 211 No. Jackson, Louisville 2, Ky. Conveyors (vibrating), Elevators (vibrating spiral), Tables (vibrating), Vibrators.

Representatives
Calif., Los Angeles — E. M. Underwood,
2901 Rowena Ave. NO 5-1247
Calif., San Francisco — Rodman & Co.,
420 Market St. YU 2-0824
Colo., Denver — Alldredge & McCabe, 847
E. 17th Ave. AL 5-7496

Ore., Portland — Bumstead-Woolford Co., 320 S. W. Stark St. CA 8-6686 Utah, Salt Lake City — Western Sales Engineering Co., 375 S. W. Temple St. DA 2-4311

7. June 2-4311 (2015) 7. June 2015 (2015) 7. J

CARTER - MILLER MILL FURNISHING CO., 1324 No. Ash St., Spokane 11,

Belting (conveyor, fabric, canvas, elevator), Carts (hand, push), Conveyors (bag and bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, portable, scraw, skate, slat, vertical), Elevators (belt, bucket, continuous flow), Loaders (portable, self-propelled), Pulleys (conveyor), Rollers (conveyor), Stackers (portable electric), Tables (conveying), Trucks (bag, barrel, drum, box type, hand), Wheels (conveyor), Dumpers (seed box, hand, power).

CARVER PUMP CO., 1056 Hershev Ave., Muscatine, Iowa

Pumps (self-priming, straight centrifugal).

Representatives

Ariz., Phoenix—Salt River Pump & Supply Co., P. O. Box 6324

Calif., Los Angeles — Westco Pump Sales

Co., 4621 Sheila St.

Calif., San Francisco—Westco Pump Sales

Co., 85 Industrial St.

Colo., Denver—I. G. Downs Co., 1550 Blake
St. St.

Mont., Billings—Seitz Machinery Co., 420
No. 24th St.
Mont., Havre—O. B. Lund Co.
Mont., Missoula—Folson Co.
Utah, Salt Lake City—Foulger Equipment
Co., 1361 So. Second W.
Wash., Vancouer—J. S. Piper Co., 107 W.
Fifth St.

CASCADE MFG. CO., 2201 N. E. 201, Portland 20, Ore.

Side shifters, Paper roll grabs, Loadpushers, Load-pullers, Turn forks, Hydraulic cylinders.

CASE, J. I., CO., 700 State St., Ra-

M-3 crawler mounted fork lifts, MW5 and M420 wheel fork lifts, tractors and tractor loeders.

Branches
Calif., Oakland — 1933 Peralta St.
Kan., Kansas City — (serves Colorado)—
2117-33 Broadway
Ore., Portland — 1709 S. E. Third Ave.
Tex., Dallas — (serves New Mexico)—4708
Harry Hines Blvd.

Harry Hines Blvd.

Representatives

Ariz., Phoenix — Superior Equipment Co., So. 19th St.

Calif., Anaheim — Orange County Tractor Co., 101 No. Manchester Ave.

Calif., Bakersfield — L. F. Freeborn, 1629 So. Union Ave.

Calif., Oakland — Blakemore Equipment Co., 9025 G St.

Calif., Sacramento — Blakemore Equipment Co., 916 No. B St.

Calif., Sar Francisco — Contractors Machinery Co., 1401 Illinois St.

Calif., Santa Barbara — Milpas Rental Service, 6 No. Milpas St.

Calif., Santa Barbara — Peterson Bros. Ind. Equipment, 575 Robert St.

Calif., Santa Clara — Peterson Bros. Ind. Equipment, 575 Robert St.

Calif., Santa Rosa — Senger Farm Supply, 1470 Santa Rosa — Senger Farm Supply, 1470 Santa Rosa Ave.

Calif., South Gate — Gilmore & Wilcox. 4558 Firestone Blvd.

Calif., Sunnyvale — Redwine Tractor Co., 216 Bayshore

Colo., Denver — Constructors Equip. Co., 3611 Walnut St.

Calif., Suna, ...
216 Bayshore
Colo., Denver — Constructors Equip. Co..
3611 Walnut St.
Colo., Trinidad—Barney's Garage & Implement Co., 705 No. Commercial
N. Mex., Albuquerque — Construction Machinery Co., 2601 Second St., N. W.
Ore., Albany — Herrold & Jensen Impl.
Co., P. O. Box 321
Ore., Eugene — Midway Mach. & Supply
Co., 3521 Franklin Blvd.
Ore., Lostine—M. Crow & Co., P. O. Box 8
Ore., Pendleton — Vaughn Co. Oregon,

Ore., Lostine—M. Crow & Co., P. O. Box 8
Ore., Pendleton — Vaughn Co. Oregon,
Ltd., 1400 S. W. Court
Ore., Portland — Willamette Equip. Co.,
2105 S. E. Seventh Ave.
Ore., Salem — A. C. Haag & Co., P. O. Box
1777, Silverton Rd.
Utah, Salt Lake City — Tractor Center Co.,
1148 So. Sixth West
Wash., Chehalis — Graham Impl. Co., 2394
Market St.

CATERPILLAR TRACTOR CO. - CHAMP SALES CORP.

Wash., Colfax — Schneidmiller & Farles, Inc., E. 306 Third St. Wash., Everett — Cascade Tractor Co., Inc., 1021 Highway 99 Wash., Montesano — Graham Impl. Co., Star Rt., Box 54 D Wash., Seattle — Yukon Equipment, Inc., 327 Colman Bldg. Wash., Yakima — Intervalley Equipment Wash.,

CATERPILLAR TRACTOR CO., 600 W. Washington, Peoria 8, III.

Diesel engines, tractors, motor graders and earth moving equipment.

Branches Calif., San Francisco — 120 Montgomery St. Ariz., Phoenix — Arizona Machinery Co., 2705 W. Thomas Rd. Ariz., Yuma—Braden Machinery Co., Hwy. Ariz., Yuma—Brauen machinery Co., 2019, 20 West Hobson Way
Calif., Colusa — I. G. Zumwalt Co., 850
Market St.
Calif., El Centro—Faure Tractor & Equipment Co., 1414 W. Main St.
Calif., Eureka — Brizard - Matthews Machinery Co., 3990 Broadway
Calif., Fresno — Budd & Quinn, Inc., 1645
H St.
Calif. Hantond — Davies Machinery Co. Calif., Hanford — Davies Machinery Co., 112 E. Seventh Calif., Los Angeles — Shepherd Tractor & Equipment Co., 3400 So. San Gabriel Equipment Co., 3400 So. San Gabriel River Pikwy.
Calif., Marysville — Marysville Tractor & Equipment Co., 712 Third St.
Calif., Modesto — Valley Tractor & Equipment Co., 104 Ninh St.
Calif., Napa — Berglund Tractor & Equipment Co., 1016 Soscol Ave.
Calif., Oxnard — Wallace Machinery Co., 625 No. Oxnard Blvd.
Calif., Riverside — Johnson Tractor Co., 3133 Seventh St.
Calif., Sacramento — Weaver Tractor Co., Calif., Riverside — Johnson Tractor Co., 3133 Seventh St.
Calif., Sacramento — Weaver Tractor Co., 1900 T St.
Calif., Sacramento — Weaver Tractor Co., 1900 T St.
Calif., San Diego — Hawthorne Machinery Co., 701 First Ave.
Calif., San Leandro — Peterson Tractor & Equipment Co., 955 First Ave.
Calif., San Leandro — Ditz Bros., 2725 Lafayette Rd.
Calif., Stan Leandro — Ditz Bros., 2725 Lafayette Rd.
Calif., Stockton—Holt Bros., Borden Hwy.
Calif., Visalia—Quinn Co., 721 E. Main St.
Colo., Denver—McCoy Co., 60th and Colorado Blvd.
Idaho, Boise — Western Equipment Co., 4009 Fairview Ave.
Idaho, Lewiston — Nez Perce Tractor & Equipment Co., Second and C Sts.
Mont., Billings — Nash-Davis Machinery Co., 1145 Highway 10 East
Mont., Great Falis — Central Machinery Co., 721 Second St. So.
Mont., Missoula — Westmont Tractor Co., 150 E. Spruce St.
Mont., Sidney — Tractor & Equipment Co., 201 No. Central
Nev. Las Vegas — Cashman Equipment

150 E. Spruce St.
Mont., Sidney — Tractor & Equipment Co.,
201 No. Central
Nev., Las Vegas — Cashman Equipment
Co., 1132 W. Bonanza Rd.
Nev., Reno — Crooks Bros. Tractor Co.,

Co., 1132 W. Bonanza Rd.

Nev., Reno — Crooks Bros. Tractor Co., Dickerson

N. Mex., Abluquerque — R. L. Harrison
Co., 1801 Fourth St. N. W.

Ore., Eugene — Pape Bros., Inc., 1865 W.
6th Ave.

Ore., Klamath Falls — Crater Lake Machinery Co., 1410 So. Sixth St.

Ore., La Grande — Inland Machinery Co., 212 Greenwood St.
Ore., Pendleton — Empire Machinery Co., 1849 S. W. Court Ave.

Ore., Portland — Halton Tractor Co., 2439
N. W. 29th Ave.
Utah, Salt Lake City—Wheeler Machinery

1849 S. W. Court Ave.
1849 S. W. Court Ave.
1970 N. W. 29th Ave.
1971 Viah, Salt Lake City—Wheeler Machinery
Co., 330 W. 21st So.
Wash., Seattle — Northern Commercial
Co., 427 Colman Bldg.
Wash., Seattle — Northern Commercial
Co., 4233 W. Marginal Way
Wash., Tacoma — N C Machinery Co., 2719
W. Tacoma Way
Wash., Walla Walla—Stone Machinery Co., 102 E. Poplar St.
Wash., Wenatchee — Columbia Tractor Co., Chelan Highway 97
Wash., Yakima — Webb Tractor & Equipment Co., P. O. Box 78
Wyo., Cheyenne — Wortham Machinery
Co., 517 W. 17th St.

CELOTEX CORP., 120 So. LaSalle St., Chicago 3, Ill.

Rigid and flexible neutral pH fiber board inner packs, blocking and dunnage.

Calif., Los Angeles — 3625 W. Sixth St. DU 5-5131 Colo., Denver — 602 Ry. Exchange Bldg. TA 5-8247

CENTURY GAS EQUIPMENT, MAR-VEL-SCHEBLER PRODUCTS DIV., BORG-WARNER CORP., 625 Southside Dr., Decatur, III.

L.P. Gas equipment.

Branches

Calif., Burbank—3310 Van Owen Calif., North Hollywood—5521 Cleon

Representatives

Ariz., Phoenix—Fannin's Gas & Equipment Co. P.O. Box 1979 Ariz., Phoenix — Suburban Gas Service. 3111 Grand Ave. Calif.. Bakersfield — L. O. McClure. 1131 33rd Calif., Fresno — Gas Tools, Inc., P. O. Box 1506 Calif., Lodi — Gray's Butane, Inc., 106 W. Calif., Lodi — Gray's Butane, Inc., 166 W. Elm
Calif., Long Beach—Petrolane Gas Service, Inc., P. O. Drawer 1410
Calif., Pomona — Suburban Gas Service Co., 2020 No. Towne Ave.
Calif., Sacramento — Cal-Gas Equipment Co., P. O. Box 52, Oak Park Station
Calif., San Jose — Weaver Gas Service.
1687 So. First St.
Calif. Upland—Suburban Gas Service Co., 60 E. Foothill Blvd.
Calif., Watsonville — Coast Gas Service.
P. O. Box 174
Colo., Denver — Central Auto Electric Co., 12th Ave. and Lincoln St.
N. Mex., Carlsbad — Carlsbad Gas & Appliances, P. O. Box 486
Wash., Yakima — Petrolane Gas Service. Inc., P. O. Box 862

CHAIN BELT CO., 4701 W. Greenfield Ave., Milwaukee 1, Wis. Elevators, Conveyors, Accessories, Pumps.

Calif., Berkeley — 2940 Seventh St. TH Colif., Los Angeles — 7601 Telegraph Rd. RA 3-4751 Colo., Denver — 110 16th St. Ore., Portland — 2310 N. W. 24th Ave. CA Ore., Po 3-6121 Utah, Salt Lake City — 10 Exchange Pl. EL 9-6679 Wash., Seattle — 2425 Airport Way, MU 6750 Salt Lake City — 10 Exchange Pl

See advertisement on page 159

Representatives

Ariz., Phoenix — Garrett Supply Co., P. O. Box 11038

Ariz., Tucson — Tucson Bearing Co., Inc., 1100 So. Park Ave.

Calif., Bakersfield — Hopper Machine Works, 301 26th St. Po 1226

Calif., El Centro — W. H. Douthitt Steel & Supply Co., P. O. Box 220, Rt. 1

Calif., Eureka — Eureka Boiler Works & Acme Foundry Co., Foot St.

Calif., Eresno — Valley Foundry & Machine Works, 2510 So. East Ave.

Calif., Long Beach — Bay City Bearing Co., 709 W. 16th St.

Calif., Los Angeles — Bearing Sales Co., 1950 So. Olive St.

Calif., Los Angeles — Garrett Supply Co., 3844 So. Santa Fe Ave.

Calif., Los Angeles — Garrett Supply Co., 3844 So. Santa Fe Ave.

Calif., Los Angeles — Bay City Iron Works, Fourth and Washington St.

Calif., Pomona — Reliable Bearing & Supply Co., 777 E. Second St.

Calif., Redding—Gerlinger Steel & Supply Co., 1539 Placer

Calif., Riverside — Reliable Bearing & Weiding Works, 83 No. 17th St.

Calif., San Bernardino — Reliable Bearing & Supply Co., 253 Seventh Ave.

Calif., San Diego — Winn Supply Co., 256 Seventh Ave.

Calif., San Diego — Winn Supply Co., 256 Seventh Ave.

Calif., San Diego — Winn Supply Co., 256 Seventh Ave.

Calif., San Leandro — Republic Supply Coof Calif., 1919 Williams St.
Calif., Santa Maria — The Bearing House, Pesco Rd.
Calif., Stockton — Guntert & Zimmerman. Inc., P. O. Box 1688
Calif., Ukiah — Klamath Machine & Locomotive Works of Calif., 720 No. State St. Calif., Ventura — The Bearing House, 1252 No. Ventura Ave.
Colo., Denver — Union Supply Co., 5460 Colorado Blvd.
Idaho, Pocatello — Paul Roberts, 850 So. Main. Colo., Denver — Union Supply Co., 5460
Colorado Blvd.
Idaho, Pocatello — Paul Roberts, 850 So
Main.
Idaho, Twin Falls — Paul Roberts, 356
Fourth Ave. W.
Idaho, Wallace—Bitco, Inc., P. O. Box 929
Mont., Billings—Hall-Perry Machinery Co.
902 Central Ave.
Mont., Butte — Hall-Perry Machinery Co.
812 E. Iron St.
Mont., Great Falls—Hall-Perry Machinery
Co., 1116 15th St. No.
Mont., Missoula — Hall-Perry Machinery
Co., 127 E. Main St.
Nev., Reno—Pioneer Equipment Co. of Nevada, 525 Kietzke Lane, P. O. Box 78.
N. Mex., Albuquerque—Gorman Eng. Co.
of New Mexico, 1330 No. 12th St.
New Mex., Carlsbad—Carlsbad Supply Co.
501 Park Dr.
N. Mex., Farmington — C. & K. Industrial
Supply, 635 E. Main St.
Ore., Baker — Basche-Sage Hardware Co.
2101 Main St.
Ore., Coos Bay—A. B. Daly, 824 No. Front
St.
Ore., Eugene—Harmer Co., 209 Polk St.
Ore., Eugene—Harmer Co., 209 Polk St.
Ore., Eugene—Harmer Co., 209 Polk St.

St.
Ore., Eugene—Harmer Co., 209 Polk St.
Ore., Eugene—Harmer Co., 209 Polk St.
Ore., Klamath Falls — Klamath Machinery
Co., 445 Spring St.
Ore., La Grande — Basche-Sage Hardware
Co., 1499 Adams Ave.
Ore., Portland—Clyde Equipment Co., 1631
N. W. Thurman St.
Ore., Portland — Harshberger Equipment
Co., 425 S. E. Ninth Ave.
Ore., Portland—H. W. Sharp Co., 71 S. W.
Oak St.
Ore., Portland—H. W. Sharp Co., 71 S. W.
Oak St.
Ore., Prineville — Prineville Machine & Supply Co., P. O. Box 85
Ore., Roseburg—Industrial Supply Co., 1928
Airport Rd.
Ore., Salem—Salem Steel & Supply Co., 180
Ore., Salem—Salem Steel & Supply Co., 180
Ore., Salem—Salem Steel & Supply Co., 180

Ore., Salem—Salem Steel & Supply Co., 180 Court St.
Utah, Helper—Carbon Transfer & Supply Co., P. O. Box 180
Utah, Salt Lake City—Bearing Engineering & Sales Co., 756 So. Second W.
Wash., Aberdeen — Whitcher Machinery Co., 411 E. State St.
Wash., Everett — Everett Hardware Co.. 2718 Broadway
Wash., Seattle — Washington Machinery Co., 7329 E. Marginal Way
Wash., Spokane—Bitco, Inc., E. 2928 Trent
Wash., Tacoma—W. S. Walter Co., 1722 Pacific

Walla Walla, Wash.—Morrison Supply Co., 217 E. Alder St.

CHAINVEYOR CORP., 5618 E. Washington Blvd., Los Angeles 22, Calif. Overhead conveyors, fully-enclosed.

See advertisement on page 153

Representatives

Representatives

Ariz., Tucson—Central Station Equipment, 2323 Aviation Hwy. MA 3-2493

Calif., Fresno—Elliott Mfg. Co., 1735 Ventura. AD 3-6236

Calif., San Diego — Hoffer Eng. Co., 2015 Main St. BE 3-7281

Calif., San Francisco—Ira G. Perin Co., 575 Howard St. GA 1-1827

Colo., Denver—Hack Engineering Co., 124 Wazee Market. TA 5-5248

Ore., Portland—Russell G. Daley & Assoc., 426 N. W. Sixth Ave. CA 2-2321

Utah, Sait Lake City—Equipment Supply Co., 16 Post Office Pl. EM 3-9074

Wash., Seattle — Charles Industrial Sales Co., 5201 First Ave. So. LA 6010

CHAMP SALES CORP., 2500 N. Rosemead Blvd., El Monte, Calif. CU 3-6083

Champ fork lift trucks.

Ariz., Phoenix—Western Machinery Co., 820 No. 17th. AL 8-8531
Ariz., Tucson—Western Machinery Co., 1111 W. St. Mary's Rd. MA 2-4777
Calif., Hayward—Western Lift Truck Service, 21031 Western Blvd. BR 6-3775, EL 1-5058
Calif., Oakland—Ricker Machinery Co., 302
4th St.

Calif., Stockton—Western Lift Truck Service, 348 W. Weber. HO 2-3847
Colo., Denver 4—Western Machinery Co., 2400 W. Seventh Ave. TA 5-7151
Colo., Grand Junction — Western Machinery Co., 590 W. 19th St.
Co., 590 W. 19th St.
Ore., Portland—Lift Truck Parts & Service, 738 N. E. Broadway. AT 1-1213
Utah, Salt Lake City—Western Machinery Co., 2300 So. Main. IN 6-868
Wash., Seattle—Masterson's Equipment & Supplies, Inc., 2720 Westlake No. AT 2-0245

Wash., Spokane—Ferris Equip. Co., E. 3823 Trent Ave.

CHANTLAND MFG. CO., P. O. Box 386, Humboldt, Iowa

Conveyors (apron, bag and bale, belt, bucket, dray, flight, foundry, gravity roller, live roller, portable, screw, skate, slat, special, engineered in-plant systems).

Representatives
Calif., Los Angeles 32 — Davis Material
Handling Co., 4891 Huntington Dr. No.
Calif., Oakland—Mill Engineering & Machinery Co., 1023 Market St.
Calif., San Gabriel — R. D. Helms & Co.,
8456 E. Las Tunas Dr.
Colo, Denver—Everett P. Segelstrom, 1075

Locust St.

Colo., Denver—Hahn Equipment Co., 1795 Sheridan Blvd. Colo., Denver 2—Plant Equipment Co., 1400 Market St.

Colo., Denver 2—Plant Equipment Co., 1400
Market St.
Mont., Billings — Nash-Davis Machinery
Co., 509 E. 27th St.
Ore., Portland -LaGrande Industrial Supply Co., 15 S. W. Arthur St.
Ore., Portland 10—Oregon Handling Equip.
Co., 2949 N. W. St. Helens Rd.
Utah, Salt Lake City—L. J. Halverson Corrugating Works, 232 Lucy Ave.
Utah, Salt Lake City—Modern Equipment
Co., 52 W. 2nd St.
Wash., Seattle—Materials Handling Equip.
Co., 2963 1st Ave. So.
Wash., Spokane—Carter-Miller Mill Furnishing Co., 1324 Nash St.

CHISHOLM - MOORE HOIST DIV. COLUMBUS McKINNON CHAIN CORP., Fremont Ave., Tonawanda,

Cranes (hand power, jib, pillar, swing, bracket, hand power traveling overhead, I beam overhead), Hoists (chain, electric, hand, monorail, traveling).

See advertisement on page 151

San Francisco—320 Tenth St. UN Calif., San Marino—475 Huntington Dr. RY 1-3346

CHRISTIAN, J. D., ENGINEERS, 480 Potrero Ave., San Francisco 10, Calif. HE 1-1300

Gearmotors, speed reducers, conveyors, process machinery.

Ariz., Scottsdale — Yancey Sales, Inc., 525 No. 84th Pl. Ore., Eugene—Harmer Co., 209 Polk St.

CLARK EQUIPMENT CO., INDUS-TRIAL TRUCK DIV., 24th St., Battle Creek, Mich.

Tractors (diesel, electric warehouse, gasoline warehouse), Trucks (elevating or lifting, diesel fork, electric fork, gasoline fork, motorized hand, industrial, gasoline lift, hand-electric lift, pallet, sheet handling, electric tiering, paper roll, strad-dia)

Calif., San Francisco — 235 Montgomery, Suite 1662. YU 2-0228

Representatives

Ariz., Phoenix—Naumann Lift Trucks, Inc., 2308 So. 11th Ave.

Calif., Bakersfield—Gray Lift, Inc., 1817 H
St. FA 2-0953

Calif., Eureka—Eureka Boiler Works, Foot of S St. HI 3-1681

Calif., Fresno—Gray Lift, Inc., 1905 Mary St. AM 8-6256

Calif., Los Angeles—Robert H. Braun Co., 5519 Jillson St. RA 3-6381

Calif., Oakland—Lifton, Inc., 6601 San Leandro St. SW 8-9100

Calif., Rialto—Robert H. Braun Co., 1762
So. Sycamore, Colton. TR 7-0657
Calif., Sacramento—J. R. Rolfe Equipment
Co., 2600 Harvard St. WA 2-7371
Calif., San Diego — Robert H. Braun Co.,
2208 Imperial. BE 3-0948
Calif., San Francisco—Lifton, Inc., 215 Embarcadero. EX 7-7929
Calif., San Jose — Warner-Yates Co., 1441
Terminal Ave. CY 7-4566
Colo., Denver—Francis & Sims, Inc., 2750
W. 17th Ave. AL 5-1781
Ore., Medford—Robert Dodd Co., 3360 No.
Pacific Hwy. SP 3-5023
Ore., Portland—Robert Dodd Co., 5210 S.
W. Corbett. CA 8-8603
Utah, Salt Lake City—Foulger Equipment
Co., 1361 So. Second West. HU 4-7625
Wash., Seattle — Liftco, Inc., 1821 Minor
Ave. MA 3-8690
Wash., Spokane—Liftco, Inc., E. 4324 Trent
Ave. KE 5-1776
Wash., Tacoma—Liftco, Inc., So. 19th at
Jefferson. BR 2-1573

CLEVELAND TRAMRAIL DIV., CLEVE-

LAND CRANE & ENGINEERING CO., Wickliffe, Ohio

Conveyors (automatic, foundry, overhead, trolley), Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric aveling overhead, foundry overhead, hand power traveling overhead, locomotive overhead, monorail overhead Grabs, Hoists (air, chain, crane, drum, electric, hydraulic, monorail, traveling), Scales (conveyor, monorail), Tractors (monorail), Trolleys.

See advertisements on pages 48 & 49

Calif., Los Angeles — Cleveland Tramrail Calif. Co., 6435 Corvette St. RA 3-5205 Calif., San Francisco—Cleveland Tramrail Calif. Co., 870 Market St. EX 7-0737 Colo., Denver—Cleveland Tramrail Denver Co., 1700 15th Ave. MA 3-3221 Utah, Salt Lake City—R. B. Rees & Co., 2906 Delsa Dr. MI 8-7019

CLEVELAND WORM & GEAR CO., 3300 E. 80th St., Cleveland 4, Ohio Drives (variable speed), Gears (worm), Reducers, speed (worm gear).

Representatives

Calif., Los Angeles — The Mark-Costello Co., 6511 Whittier Blvd. RA 3-4698

Calif., San Francisco—Milligan-Spika Co., 1485 Bayshore Blvd. JU 5-8153

Colo., Denver — Goble & Sampson, 1737

Franklin St. MA 3-6976

Ore., Portland — Bearing Sales & Service, Inc., 1645 N. W. Hoyt St. CA 3-6301

Utah, Salt Lake City — Sales Engineering Co., Inc., 526 W. 8th So. St. EL 5-1162

Wash., Seattle—Bearing Sales & Service, Inc., 2908 Sixth Ave. So. MU 2-0331

CLEVELAND VIBRATOR CO., 2914 Clinton Ave., Cleveland 13, Ohio

Branch Calif., San Francisco—Industrial Vibrator & Machinery Co., 1485 Bayshore Blvd. JU 4-300

See advertisement on page 156

CLIPPER BELT LACER CO., 974 Front Ave., N. W., Grand Rapids 2, Mich. Belt fasteners, Belt lacings.

(Industrial distributors on non-exclusive

CLYDE IRON WORKS, Duluth 1,

Cranes (gantry), Hoists (bucket, crane, derrick, drum, electric, gasoline, portable), Winches and Windlasses.

Representatives
Calif., Norwalk — Harron, Rickard & McCone Co., 13770 E. Firestone Blvd. UN
8-3284
Calif., San Francisco — Coast Equipment
Co., 444 Eighth St. MA 1-5740
Colo., Denver — Mine & Smelter Supply,
3800 Race St. KE 3111
Idaho, Boise — Intermountain Equipment
Co., Broadway at Myrtle. Phone 3-6441
Mont., Billings — Western Construction

Equipment Co., 505 No. 24th St. Phone 9-5501

9-5501 Great Falls — Western Const. & Equip. Co., 2322 River Dr. GL 3-1405 N. Mex., Albuquerque — Harry Cornelius Co., 1510 No. 2nd St. Phone 3-1776 Ore., Portland—Clyde Equipment Co., 1631 N. W. Thurman St. BR 5561 Utah, Salt Lake City — Mine & Smelter Supply, 121 W. Second So. St. Wash., Seattle—Clyde Equipment Co., 3410 First Ave. So. MA 1235 Wash., Spokane — Intermountain Equipment Co., E. 611 Sprague Ave. TE 2521

COFFING HOIST DIV., DUFF-NOR-TON CO., 800 Walter St., Danville,

Hoists (chain, electric, hand, portable, traveling), Jacks (hydraulic, lift, screw).

Warehouse (Duff-Norton Co.)
Calif., San Francisco—1016 Howard St. HE
1-4755

Representatives
Calif., Lafayette—A. M. Kelly, 1133 Laurel
Colo., Denver—F. R. Elsner, 842 So. York
St. SP 7-5131
N. Mex., Albuquerque—J. G. Austin, 1505
Las Lomas, N. E. Phone 5-9494
Ore., Portland — T. Petersen, 9823 S. W. Second Ave.
Distributors in all major cities.

COLES CRANES, INC., P. O. Box 942, Joliet, III.

Mobile cranes (self-propelled, truck-mounted, rail-mounted).

Mounted).

Representatives

Ariz., Phoenix — Naumann Lift Trucks, Inc., 2308 So. 11th Ave. AL 8-8951
Calif., Fresno—Gray Lift, Inc., 1905 Mary St. AM 8-6256
Calif., Los Angeles—Robert H. Braun Co., 5519 Jillson St. RA 3-6381
Calif., Oakland—Robert H. Griffin Co., 600
16th St. GL 1-3234
Calif., San Diego—Robert H. Braun Co., 2208 Imperial. BE 3-0948
Colo., Denver—Woodriff Brothers, 617 Cooper Bidg. TA 2913
Ore., Portland—Air-Mac, Inc., 1111 S. E. Grand Ave. BE 4-6524
Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl. Phone 3-9074
Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. MU 3388

COLORADO FUEL & IRON CORP., P. O. Box 1920, Denver 1, Colo.

Metal processing balts, Folding bin pallets, slings (wire rope), Wire rope.

Branches
Ariz., Phoenix—201 So. 28th St. BR 5-6231
Calif., Los Angeles—2444 Saybrook Ave.
RA 3-4691
Calif., Oakland—1810 - 19th Ave. KE 2-2141
Calif., San Francisco—357 Russ Bldg. SU Calif., San Leandro - 425 Hester St. NE

See advertisement on page 20

6-1959 olo., Denver — 4950 Colorado Blvd. DU Colo., 1 8-2491 Grand Junction-P. O. Box 451. CH 2-5203 Colo., Pueblo—P. O. Box 316. LI 3-2470 Idaho, Boise—P. O. Box 1552. Phone 3-6461 Mont., Billings — 501 N. 27th St. Phone 2-6336 Mont., Butte Phone 5359 Butte - 401 Metals Bank Bldg. N. Mex., Albuquerque—2824 Central Ave., S. E. CH 3-5526 Ore., Portland—3150 N. W. 31st Ave. GA 8-7311 Utah, Salt Lake City—212 W. 13th So. St. IN 7-5438 Wash., Seattle—3434 Second Ave. So. MA 4-4881 Wash., Spokane—4320 E. Trent Ave. KE 5-2071

COLSON CORP., 7 So. Dearborn, Suite 1000, Chicago 3, III.

Casters, Conveyors (automatic belt, continuous flow, gravity roller, portable, skate), Hoists (hydraulic, portable), Jacks (lift), Pallets, Racks (storage), Skids, Tables (elevating), Trucks (bag, barrel, drum, box type, die handling, dolly, elevating or lifting, hand, hand lift, hand electric lift, handmechanical lift, nallet, skid handling), Wheels (conveyor, general industrial, hand truck, rubber tired).

COLSON EQUIPMENT & SUPPLY CO. — CYCLOPS IRON WORKS

Representatives

Calif., Los Angeles—Colson Equipment & Supply Co., 1317 Willow St. TR 5743

Calif., Oakland—Colson Equipment & Supply Co., 350 Tenth St. TE 2-3556

Calif., San Francisco—Colson Equipment & Supply Co., 20 Beale St. GA 1-0280

Colo., Denver—Armstrong Caster Co., 465

Santa Fe Dr. AC 3777

Idaho, Boise—R. H. Brown Co., 114 So. 23rd

St. Phone 3-7311

Mont., Helena—R. H. Brown Co., 812 No.

Main St. HI 2-2430

N. Mex., Albuquerque—Kinney Mtls. Handling Equipment, Inc., 6431 Linn Ave.

N. E. Phone 7-5518

Utah, Sait Lake City—R. H. Brown Co., 2625 So. 19th St. E. HU 5-2986

Wash., Seattle—R. H. Brown Co., 502 First

Ave. So. SE 0707

COLSON EQUIPMENT & SUPPLY CO., 1317 Willow St., Los Angeles 13, Calif. MA 2-2422

Casters, Wheels, Hand trucks, Platform trucks, Conveyors, Portable elevators.

See advertisement on page 131

Branches
Calif., Oakland—350 10th St. TE 2-3556
Calif., San Francisco—544 Second St. GA
1-0280

COLUMBIA-GENEVA STEEL DIV., UNITED STATES STEEL CORP., 120 Montgomery St., San Francisco 6,

cts for materials handling equipment Steel products and packaging.

Calif., Los Angeles—2087 E. Slauson Ave. LU 5-1171 Colo., Denver—First Nat'l Bank Bldg. MA 3-2241 Ore., Portland — 2345 N. W. Nicolai. CA 2-9534 Utah, Salt Lake City—Walker Bank Bldg. DA 2-0491 Wash., Seattle-7th & Olive Way. MA 1972

COLUMBUS McKINNON CHAIN CORP., Tonawanda, N. Y.

Chains and slings (Herc-Alloy sling chains, sling hooks, grab hooks and master links, Hammerlok coupling links), Chains (Inswell high test, proof coil, BBB chain).

Calif., Los Angeles—4802 Loma Vista Ave. LU 3-7312 Calif., San Francisco—605 Third St. GA Calif., S 1-6444 1-6444
Ore., Portland—Lou Falkenhagen Co., 907
N. W. Irving St. CA 3-5129
Utah, Salt Lake City—Naylor & Burt, 150
So. Fourth W. St. EL 5-7424
Wash., Seattle—Lou Falkenhagen Co., 2400
Sixth Ave. So. MU 2-4814

COLUMBUS McKINNON CHAIN CORP., see CHISHOLM-MOORE HOIST DIV.

CONTAINER CORP. OF AMERICA, 38 So. Dearborn St., Chicago 3, III. Boxes for shipping (corrugated and fibre and fibre

Calif., Modesto—Box 1364
Calif., Salinas—Box 38
Ore., Milton-Freewater—411 So. Main St.
Ore., Salem—215 Masonic Bldg.
Wash., Wenatchee—815 Wenatchee Ave.
Wash., Yakima—700 W. Walnut

Calif., Fresno—Sunland Ave.
Calif., Los Angeles—2001 E. 58th St.
Calif., Los Angeles—2008 So. Malt Ave.
Calif., Los Angeles—2008 So. Boyle Ave.
Calif., Oakland—4549 Horton St.
Calif., Santa Clara—2500 De LaCruz Blvd.
Ore., Portland—12005 Burgard St.
Wash., Renton—7000 So. 143rd St.
Wash., Seattle—4634 E. Marginal Way
Wash., Tacoma—817 E. 27th St.

CONTINENTAL CAN CO., INC., 100 E. 42nd St., New York 17, N.Y. Shipping Boxes (corrugated and fibre and fibre board), packaging machinery, pallets. Representatives
Representatives in all principal cities in the West.

CONVEYOR CO., MOBILE SWEEPER DIV., 3260 E. Slauson Ave., Los Angeles 58, Calif. LU 2-8411

Belting (chain link, composition, conveyor, eleva-tor, wire), Conveyors (ayron, automatic, bag and bale, belt, bucket, chain or link, drag, flight, foundry, gravity roller, scraw, skate, vibrating), Elevators (belt, bucket, continuous flow), Pulleyr (conveyor), Scales (automatic, conveyor), Wheels

(conveyor). Representatives

Ariz., Phoenix — O. S. Stapley Co., 723
Grand Ave. Phone 3-2121
Calif., San Diego — Southern Equipment
and Supply Co., 2025 E. Harbor Drive.
BE 2-6123
Calif., San Francisco—Tri-Counties Equipment and Implement Co., 575 Berry St.
MA 1-3121
Calif., Ukiah — Fullerton Equipment Co.,
265 E. Clay St. HO 2-4524
Colo., Denver—Tudor Equipment Co., 6198
Colorado Bivd. AT 8-1513
Idaho, Boise—Starline Equipment Co., 503
S. 16th St. Phone 4-3321
Ore., Portland — Contractors Equipment
Co., P. O. Box 2191. BE 5-4131
Utah, Salt Lake City—Archer Tractor, 1118
So. Main St. EM 3-3821
Wash., Seattle — Sahlberg Equipment Co.,
Inc., 5940 Fourth Ave. So. MO 6060
Wyo., Casper—Moss Equipment & Supply
Co.

CONVOY, INC., 3424 Navarre Rd., S. W., Canton 6, Ohio

Baskets (fibre), Bins, Boxes (tote).

Representatives
Calif., Los Angeles—H. O. Bishop, 1717 Industrial. VA 5807 c
Calif., Oakland—E. C. Buehrer, 253 Fourth
St. TE 6-2082

CORRIGAN, J. C. CO., INC., 41 Norwood St., Boston 22, Mass.

Conveyors, portable and stationary conveyor systems, bulk handling systems.

Representatives
Calif., Los Angeles—Alden Equipment Co.,
P. O. Box 47666, Wagner Sta. FA 1-0360
Colo., Denver—E. C. Horne Machinery Co.,
1726 Champa St. TA 7015
Utah, Salt Lake City—National Equipment
Co., 101 W. Second So. St.

COST REDUCTION EQUIPMENT CO., 5200 Chakemco St., South Gate, Calif.

Mobile cranes, Fork trucks, Winches and Capstans, Hoists, Cranes, Conveyors (all types), Shop trucks and trailers, Jack and pallet trucks, Dockboards.

CRANEVEYOR CORP., 1240 S. Boyle Ave., Los Angeles 23, Calif.

Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric overhead, electric traveling, foundry overhead, hand power traveling overhead, I beam overhead, monorail overhead), Hoists (air, chain, crane, electric, hand, monorail, portable, traveling, other), Trolleys, Electric cable reels.

Ariz., Phoenix — Pratt-Gilbert Hardware Co., P. O. Box 2230. AL 8-6751
Colo., Denver—Mine and Smelter Supply, P. O. Box 5270, Terminal Annex. KE 4-3111
Utah, Salt Lake City—Mine and Smelter Supply, 121 W. So. Second. Phone 3-2791

CRANE HOIST ENGINEERING CORP., 6515 Salt Lake Ave., Bell, Calif.

onorails, jibs, gantries and hoists, winches and related structures.

San Leandro — 426 Hester St. LO 2-3075

2-3075

Representatives

Ariz., Scottsdale — Mechanical Equipment
Co., 222 So. Hinton Ave. WH 5-6359
Celo., Denver—Materials Handling Equipment Co., 1795 Sheridan Blvd. BE 7-0433
Ore., Portland—Norman Rupp Co., 103 S.
W. Frent Ave. CA 8-4311
Utah, Salt Lake City—Machinery Center,

Inc., 1201 So. Sixth W. HU 4-7601 Wash., Seattle—D. L. Snellman Co., 113 King St. EL 8260

CRESCENT BELT FASTENER CO., 381 Fourth Ave., New York 16, N. Y. MU 5-7285

Belt fasteners and self-clinching rivets.

Representatives
(Distributors in all major Western cities.)

CROWN-ZELLERBACH CORP., 343 Sansome St., San Francisco 19, Calif. mmed Tape (packaging), Paper & Paper Prod-

Branch offices and plants in Los Angeles, Antiock and San Leandro, Calif.; Port-land, West Linn, Lebanon and St. Helens, Ore.; Camas, Port Angeles, Port Town-send and Seattle, Wash.

CROWN - ZELLERBACH CORP., see also GAYLORD CONTAINER DIV.

CULLEN-FRIESTEDT CO., 1300 So. Kilbourn Ave., Chicago 23, III.
Buckets (clamshell), Cranes (locomotive), Grabs
(rail tongs, sheet steel lifters, coil steel lifters),
Grapples, Welding positioners.

Representatives
Calif., Los Angele-J. E. Simkins, 1748 W. 54th St. AX 1-2022
Calif., San Francisco 11—G. Proffitt, Ferry Bldg. DO 2-1464
Wash., Seattle-H. A. Cheever, 2739 First Ave. So. EL 1078

CURTIS MFG. CO., 1905 Kienlen Ave., St. Louis 20, Mo.

Hoists (air, hydraulic), Air cylinders.

Representatives
Calif., Berkeley — Harry Koses, 3033 San
Pablo Ave. AS 3-6726
Calif., Los Angeles—L. L. Meikle, 2844 So.
Grand Ave. RI 8-0151
Colo., Denver—E. J. Witulski, 1270 So. Josephine. PE 6775
Ore., Portland—E. A. Cravens, 1018 S. E.
Eighth Ave. BE 4-7469

CUSHMAN MOTORS, Lincoln, Nebr. Trucks (gasoline industrial).

Calif., Los Angeles—Cushman Motor Sales, 2145 W. Manchester Calif., Sacramento—Al Lauer, 1930 J St. Calif., San Diego—Guy Urquhart, 1041 Co-lumbia lumbia
Calif., San Francisco—Hap Jones, 235 Valencia

CYCLONE FENCE DEPT., AMERICAN STEEL & WIRE DIV., UNITED STATES STEEL CORP., P. O. Box 260, Waukegan, III.

Baskets (wire), Belting (chain, link, flat wire, par-allel wire, conveyor, endless), Sprockets (conveyor belt).

Phoenix — 2532 So. 15th Ave. AL. Ariz., Phoenix — 2532 So. 15th Ave. AL 6-1694
Ariz., Tucson — 426 E. Seventh St. MA 3-4617
Calif., Bakersfield—1500 E. California Ave. FA 3-9262
Calif., Fresno—P. O. Box 1803. AD 7-8054
Calif., Glendale—820 Thompson Ave. CH 5-2635 5-2635 Calif., Oakland—954 60th St. OL 2-2060 Calif., Riverside—3485 Orange St. OV 3-4717 Calif., Sacramento—1331 T St. GI 2-7261 Calif., San Diego—2144 El Cajon Blvd. CY 8-8943 o-0-243 Calif., San Francisco—440 Bayshore Blvd. VA 4-1575 Calif., San Jose—460 Park Ave. CY 5-3310 Ore., Portland—400 N. E. 11th Ave. BE 2-8105 Utah, S 5-6321 Salt Lake City-3206 Main St. HU Wash., Seattle — 1150 Fairview Ave. No. MA 8164

CYCLOPS IRON WORKS, 837 Folsom St., San Francisco 7, Calif. DO 2-6100 Cranes (gantry, hand power, jib, electric an

DARNELL CORP., LTD. - DIAMOND CHAIN CO., INC.

electric traveling overhead, foundry overhead, hand power traveling overhead, I beam overhead, monorail overhead), Grapples, Hoists (crane, elec-

DARNELL CORP., LTD., 12000 Woodruff Ave., Downey, Calif.

Casters, Wheels (general industrial, hand truck, rubber tired, trailer).

Calif., San Francisco—681 Market St. SU 1-0413

Representatives

Ariz., Phoenix — Garrett Supply Co., 2950

W. Thomas Rd. AL 8-5701

Ariz., Phoenix—Luna Corp., 447 W. Jefferson

Calif., Anaheim—Eureka Bearing & Supply Co., 502 So. Los Angeles St. KE 5-2888

5-2006 Calif., Fresno—Valley Foundry & Machine, 2516 So. East Ave. AD 3-6135 Calif., Long Beach—American Wholesale Hardware, 1500 W. Anaheim St. Phone

Hardware, 1900 W. Analtein St. V. Aller 612-61 Calif., Long Beach—Jones Hardware Co., 1901 Santa Fe. HE 2-8435 Calif., Los Angeles—Andrews Hardware & Metal, 334 So. Main St. MU 6111

See advertisement on page 152

See advertisement on page 152

Calif., Los Angeles—W. T. Billard, Inc., 734
E. Third St. MI 2659
Calif., Los Angeles—Colson Equipment & Supply Co., 1317 Willow St. TR 5743
Calif., Los Angeles—Republic Supply Co., 2600 So. Eastland. RÅ 3-2511
Calif., Los Angeles—Union Hardware & Metal Co., 5555 Ferguson Dr. RÅ 3-2411
Calif., Los Angeles—Warren & Bailey Co., 3528 So. Garfield Ave. RÅ 8-7181
Calif., Los Angeles—Yaeger & Sons, 1512
E. Olympic. TR 3576
Calif., Sacramento — Capitol Machine & Welding Works, 83 No. 17 St. GI 3-2556
Calif., San Bernardino—Reliable Bearing & Supply Co., 263 So. E St. TU 8-6565
Calif., San Diego—Mission Pipe & Supply Co., 200 Ninth St. BE 3-6633
Calif., South Gate—Justice Co., 4680 Firestone Blvd. LO 4-1855
Colo., Denver—Murray Sales Co., 16 Wazee Market. KE 4-5296
Mont., Billings—Bearings Supply Co., 2nd Ave. at 12th St. No.
Nev., Las Vegas—Vegas Material Co., 1025 So. Main St. DU 4-2025
N. Mex., Albuquerque—Safway Steel Scaffold Co., 2702 Vista Larga Ave. N. E. Phone 6-1713
Ore., Portland—F. E. Bennett Co., 426 N. W. Sixth Ave. CA 8-2321
Utah, Salt Lake City—Webb Co., 533 So. 2nd W. St. El. 9-2946
Wash., Seattle—J. W. Ralston Co., 1401 W. Garfield. AL 8383
Wash., Spokane—Standard Supply Co., 2725
E. Sprague Ave. KE 5-2014

DAY CO., 810 Third Ave. N. E., Minneapolis 13, Minn.

Bins, Conveyors (pneumatic)

Representatives
Calif., Los Angeles — Milton J. Adamson,
714 W. Olympic Blvd. RI 8-5345
Calif., Berkeley—J. H. Schmidt Co., 1501
San Pablo Ave. LA 5-9641
Idaho, Twin Falls—C. K. Brown & Assoc.,
Inc., 401 Shoshone St. So. RE 3-2320
Wash., Federal Way—Larson & Baardson,
Inc., 31215 Pacific Hwy. TA 4-1240

DAYBROOK HYDRAULIC DIV., YOUNG SPRING & WIRE CORP.,

Bowling Green, Ohio

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Cranes (jib, yard), Hoists (hydraulic), Loaders and Unloaders (tailgate).

Representatives

Ariz., Phoenix—Western Truck Equip. Co., 3101 No. 29th Ave.
Calif., Fresno — Utility Trailer Sales Co., So. Highway 99 at Orange Ave.
Calif., Los Angeles — Brown-Bevis Industrial Equip. Co., 6550 E. Washington Blvd.
Calif., Maywood — Western Body & Hoist Co., 5729 Maywood Ave.
Calif., Oakland—Transport Supply Co., 2823 Adeline St. Adeline St.
Colo., Denver—Timpte Bros., Inc., 2300 E.
40th St. Mont., Joplin-McClellan's, Inc.

N. Mex., Albuquerque—Timpte Bros., Inc., 4300 Second N. W. Ore., Portland—Air Mac, Inc., 1111 S. E. Grand Ore., Portland — Utility Trailer & Equip. Co., 4771 S. E. 17th Ave. Utah, Salt Lake City—Flinco, Inc., 276 W. First St. First St. Vash., Seattle—Air Mac, Inc., 3838 Fourth Ave.
Wash., Seattle—Transport Trailer & Equip.
Co., Inc., 3400 Sixth Ave. So.
Wash., Spokane—Air Mac, Inc., E. 3710
Trent Ave.
Wash., Spokane—Spokane Machinery Co.,
E. 3626 Trent Ave.

DAYTON RUBBER CO., 2342 W. Riverview Ave., Dayton 7, Ohio Belting (endless), Pulleys (V-belt).

Calif., Los Angeles — 909 E. Slauson Ave. AD 4-0111

DEARBORN FABRICATING & ENGI-NEERING CO., 19440 Glendale

Ave., Detroit 23, Mich. Cable-link conveyors

Representatives
Calif., Los Angeles—Handling Systems of America, 429 So. Western Ave.

DEERE, JOHN, INDUSTRIAL DIV., 3300 River Dr., Moline, Ill.

Crawler tractors (gas and diesel), Wheel tractors (gas and diesel), Loaders (gas and diesel), Crane (for light wheel tractor), Fork lift, Trailers.

Calif., San Francisco — 651 Brennan. SU 1-2929 1-2929
Minn., Minneapolis (serves Montana)—800
Washington Ave. No. FE 2-5451
Mo., Kansas City (serves Colorado, New Mexico)—Southeast Sta. EM 1-4000
Nebr., Omaha (serves Wyoming) — 912
Howard St. AT 9401
Ore., Portland—215 S. E. Morrison. BE

DELUXE METAL FURNITURE CO., Warren, Pa.

Boltless steel shelving, storage wardrobe and combination cabinets, Verti- File (open shelf filing equipment).

Calif., Los Angeles—712 So. Santa Fe. MA 2-0794

2-0794

Representative

Ariz., Phoenix—Thunderbird Sales Corp., 2255 W. McDowell Rd. AL 4-8874
Calif. San Francisco—Enterprise Commercial, 20 Pacific Ave. EX 7-0618
Colo., Denver—Products, Inc., 1444 Oneida St. FR 7-4327
Idaho, Boise—John H. Thorn Co., 1724 Ridenbaugh. Phone 2-8772
Nev., Las Vegas—Acme Hdwe. Co.
N. Mex., Albuquerque—Landes, Zachary & Peterson Co. AL 6-9449
Wyo., Cheyenne—Frontier Office Equipment Co. Phone 7-7311
Utah, Salt Lake City—Pembroke's, 24 E. Broadway. EM 4-8424
Wash., Seattle 4—Timmerman Equipt. Co. MU 2767

DEMING CO., THE, Salem, Ohio

Calif., Los Angeles — Simonds Pump Co., 445-E. 4th St.
Calif., San Francisco—Simonds Machinery Co., 816 Folsom St.
Ore., Portland—Polson Implement Co., 205 S. E. Hawthorne Blvd.
Wash., Seattle—Polson Implement Co., 631 Western Ave.
Wash., Spokane—Polson Implement Co., E. 210 Montgomery St.

DEMPSTER BROTHERS, INC., Springdale Ave., (P. O. Box 3127), Knoxville, Tenn.

System consisting of a truck-mounted unit handling many types and sizes of containers.

West Coast District Sales Manager Calif., Los Altos—H. J. Nolan, 1468 Rich-ardson Ave. YO 8-5111

Ariz., Phoenix — Mike Murphy, 8211 No. Central. WI 3-5853

Calif., Los Angeles—Calavar Corp., 2700 S. Broadway. RI 8-6292
Calif., San Francisco—F. W. D. Pacific Co., 850 Harrison St. GA 1-4971
Calif., San Mateo—Jack Jank, 3836 Colegrove St. FI 5-5217
Colo., Denver—Elder Trailer & Body, Inc., 4830 Race St. AM 6-1781
Ore., Portland—Jack Jank, 7750 S. W. 48th Ave. CH 4-7017
Uah, Sait Lake City—Material Handling Engineers, Inc., 334 W. 17th So. St. Phone 5-8/51

Utah, Salt Lake City—Ralph B. Rees Co., 2906 Delsa Dr. CR 7-3529 Wash., Seattle—Lars Carlson, 3004 W. Laurelhurst Dr. PL-6559

DERBY SEALERS, INC., Derby, Conn.

Complete line of manually and electrically operated machinery for dispensing gummed tape, pressure - sensitive tape and pressure - sensitive labels in roll form, along with semi and fully-automatic product labelers.

Calif., Glendale — 712 No. Maryland Ave. CI 4-6853

Representatives

Ariz., Phoenix — Frank A. Biederman Assoc., 1033 E. San Juan. CR 4-0775

Calif., Los Angeles — Los Angeles Supply Co., 2261 So. Atlantic Blvd. AN 9-0451

Calif., Los Angeles—Western-Sinclair, Inc., 4727 E. 48th st. LU 9-5516

Calif., San Francisco — Diagraph-Bradley Distributing Co., 340 Fourth St. SU 1-4928; -5536

Colo., Denver—Denver Tape Products Co., 1218 Gaiapago St. AL 5-7341

DETROIT HOIST & MACHINE CO., 8204 Morrow St., Detroit 11, Mich. Cranes (air, electric), Hoists (electric, air).

Calif., Berkeley—Walter Weyman Co., 607 Addison Ave. TH 5-3900 Calif., Los Angeles—Hoist Specialties Co., 429 So. Western Ave. DU 8-2417

DIAGRAPH - BRADLEY INDUSTRIES, INC., P. O. Box 269, Herrin, III.

Shipping room supplies (marking, labeling and stitching equipment, etc.).

Representatives
Calif., Los Angeles—Shipping Room Supply Co., 1547 Estudillo Ave. AN 1-2194
Calif., San Francisco — Diagraph-Bradley
Distributing Co., 340 Fourth St. SU

Distributing Co., 340 Fourth St. SU
1-5536
Colo., Denver 2 — Materials Handling
Equipment Co., 1795 Sheridan Blvd. BE
7-0433
Ore., Portland 9—John W. Negus Co., 3005
N. E. Sandy Blvd. BE 4-8515
Utah, Ogden—The Geo. W. Goddard Co.,
24ta St. and Wall Ave. Phone 2-7546
Wash., Seatte—Secord Sales Co., 95 Connecticut St. MA 0737

DIAMOND CHAIN CO., INC., Subsidiary of American Steel Foundries,

402 Kentucky Ave., Indianapolis 7, Ind. Chains (roller, conveyor), Sprockets, Couplings (shaft, flexible).

Calif., Los Angeles—900 Santa Fe Ave. MA 2-1723 Calif., Menlo Park—595 Santa Cruz Ave. DA 3-4940

Representatives

Ariz., Flagstaff—Semon Industrial & Welding Supply Co., 27 Mikes Pike
Ariz., Phoenix—Semon Bearing & Supply Co., 325 No. Third Ave.

See advertisement on page 61

Ariz., Tucson — Tucson Bearing Co., Inc., 1110 So. Park Ave.
Calif., Arcata—Reliable Hardware Co., Inc., 11th and "M" Sts.
Calif., Bakersfield — Power Transmission Equipment Co., 109 23rd
Calif., Fresno—Pacific Mill & Mine Supply Co., Inc., 530 Van Ness Ave.
Calif., Los Angeles—Degen-Fiege Co., 4559
E. Sheila St.
Calif., Los Angeles—Power Transmission Equipment Co., 4501 Firestone Blvd.
Calif., Sacramento—Western Industrial Supply Co., 905 "G" St.
Calif., Sar Francisco—Horsford Bros., 944
Folsom St.

R & J DICK CO., INC. — E. H. EDWARDS

Calif., San Francisco—Monarch Corp. Supply Div., 55 New Montgomery St.
Calif., San Leandro—Monarch Corp. Supply Div., 2075 Williams St.
Calif., San Leandro—Monarch Corp. Supply Div., 2075 Williams St.
Calif., Santa Clara—Monarch Corp. Supply Div., 2485 The Alameda
Calif., Stockton—Hickinbothan Bros. Ltd., 336 So. Aurora St.
Colo., Denver—Colorado Bearing Co., 1618
Wazne St.
Idaho, Boise—Western Conveyor Co., 2801
Warm Springs Ave.
Idaho, Pocatello — Pocatello Plumbing & Industrial Supply Inc., 1921 No. Harrison N. Mex., Albuquerque—The Harry Cornelius Co., 1510 Second St. N. W.
Ore., Brookings—Reliable Hardware Co., Inc., 234 Wharf St.
Ore., Eugene—Bearing Sales & Service, Inc., 225 Seventh Ave., W.
Ore., Portland—Bearing Sales & Service, Inc., 2465 N. W. Hoyt St.
Ore., Portland—Woodbury & Co., Swan Island, 3851 No. Lagoon
Ore., Roseburg—Bearing Sales & Service, Inc., 460 N. E. Garden Valley Blvd.
Utah, Salt Lake City—Utah Sprocket & Machinery Co., 717 So. Fourth, W.
Wash., Aberdeen—Mill & Logging Supply Co., 313 So. "H" St.
Wash., Everett — Washington Belting & Rubber Co., 2823 Grand Ave.
Wash., Pasco—Bearing Sales & Service, Inc., 319 W. Clark
Wash., Seattle — Washington Belting & Rubber Co., 2763 First Ave., So.
Wash., Tacoma — Washington Belting & Rubber Co., 672 E. 11th St.

R & J DICK CO., INC., Minnesink

R & J DICK CO., INC., Minnesink Rd. & Furler St., Totowa, N. J.

Solid conveyor pulleys, Self-cleaning pulleys, Steel split pulleys, Vee sheaves, Conveyor and elevator belt (balata type), Endless belt, Detachable belting,

Branches
Calif., Maywood—5276 Atlantic Blvd. LU
3-4014
Calif., San Francisco—510 Bryant St. SU
1-1341

See advertisement on page 137

Ore., Portland — 716 N. E. 3rd Ave. BE 4-6251 4-0201 Wash., Seattle — 307 Maritime Bldg. MU 2-1922 (Contact any of the branches for name of nearest distributor.)

DICO CO., 200 S. W. 16th St., Des Moines 5, Iowa

Brakes, Tires, Trucks (bag, barrel, drum, box type, hand), Wheelbarrows, Wheels (general industrial, hand truck, trailer).

Calif., San Francisco—W. W. Wohlforth Co., 420 Market St. YU 2-2616 Utah, Sait Lake City—J. Lester Barlow. 509 Beason Bidg. EM 3-5456

DILLON, W. C., & CO., INC., 14620 Keswick St., Van Nuys, Calif.

Dillon weight indicator, Dillon Dyna-Switch.

Representatives
Ore., Portland—Jack Ogle & Co., 2505 S. E.
11th Ave. BE 5-4080
Wash., Seattle—Jack Ogle & Co., 105 Orcas
St. MO 2030

DIVINE BROTHERS CO., 200 Seward Ave., Utica 1, N. Y.

Casters, Wheels (general industrial, hand truck, rubber tired, trailer).

Representatives

Calif., Los Angeles—Utilities Supply Co., 2852 Supply St. PR 3178

Colo., Denver—Materials Handling Equipment Co., 1795 Sheridan Blvd. KE 4-5500

Ore., Portland — Oregon Handling Equipment, 2949 St. Helens Rd. AT 5792

Utah, Salt Lake City—Modern Equipment Co., 52 W. Second So. St. Phone 9-2171

Wash., Seattle—J. W. Ralston Co., 1401 W.

DODGE MFG. CORP., So. Union St., Mishawaka, Ind.

Pulleys (conveyor, other), Speed reducers, Pillow block bearings, V-belt drives, Chain drives, Fluid drives, Couplings.

Calif., San Francisco—55 New Montgomery St. DO 2-8434

Representatives

Calif., Rivera—R. C. Kingsbury, 7744 Industry Ave. RA 3-8621

See advertisements on pages 6 & 7

Calif., San Francisco—Ben Reaves, 55 New Montgomery St. DO 2-8434 Colo., Denver—D. M. Leckey, 1483 So. Eu-dora. SK 6-5347 Ore., Oswego—M. M. Studebaker, 1011 Bay-berry Rd. NE 6-5081

DOWNS CRANE & HOIST CO., 540 W. Vernon Ave., Los Angeles 37,

Cranes (gantry, hand power, jib, pillar, swing bracket, double beam overhead, electric traveling overhead, hand power traveling overhead, l-beam overhead, Grabs, Grapples, Hoists (crane, derrick, drum, electric, skip, traveling, other), Slings (belt, Taveling, other), Slings (belt, Tav canvas, chain, rope, wire rope, other), Tongs, Trolleys, Crane wheels, Winches and Windlasses.

DUCT-O-WIRE CO., 6520 Bissell St., Bell, Calif.

Electric crane and monorail conductor systems

Calif., Garden Grove—9593 Garden Grove Blvd. JE 7-4450

Calif., Bell (Los Angeles).—Crane Hoist Engineering Corp., 6515 Salt Lake Ave. LU 2-7121
Calif., San Leandro.— Crane Hoist Engineering Corp., 426 Hester St. LO 2-3075

DUFF-NORTON CO., P. O. Box 1889, Pittsburgh 30, Pa.

Hoists (chain, electric, hand, monorail, portable), Trolleys.

Branches
Calif., San Francisco—1016 Howard St. HE 1-4755 Portland-9823 S. W. Second Ave. CH

DUFF-NORTON CO., see COFFING HOIST DIV.

DURKEE-ATWOOD CO., 215 Seventh St. N. E., Minneapolis 13, Minn. V-belts, Sponge rubber sheeting and stripping.

Calif., Los Angeles—5738 Holmes Ave. LU Calif., Oakland—2201 West St. TE 2-3817 Calif., Sacramento—2632 Rochon Way. GL 5-2247

5-2247

Representatives

Ariz., Phoenix—Edward D. Maltby Co., 424
W. Jefferson
Calif., Berkeley—Berkeley Industrial Supply, 1003-5 Pardee St.
Calif., Burbank—Brand Tool & Supply Co., 907 So. Victory
Calif., El Monte—Mercury Industrial Hardware, 11203 E. Garvey Blvd.
Calif., Eureka — Bearing & Transmission Prod., 2830 Broadway
Calif., Fresno—Central Supply Co., 424 M St.

Prod., 2930 Broadway
Calif., Fresno—Central Supply Co., 424 M
Calif., Fresno—Central Supply Co., 424 M
Calif., Huntington Park — Mechanical
Drives Co., 5400 Pacific Blvd.
Calif., Lodi—Gundershaug Electric Co., 130
No. Sacramento St.
Calif., Los Angeles—Acme Industrial Supply Co., 6213 Avalon
Calif., Los Angeles—B-B Supply Co., 4849
Telegraph Rd.
Calif., Los Angeles — Degen Fiege, 4559
Sheila
Calif., Los Angeles — Degen Fiege, 4559
Sheila
Calif., Los Angeles — Hendrie Belting &
Rubber Co., 405 Towne Ave.
Calif., Los Angeles—E. D. Maltby Co., 1718
So. Flower St.
Calif., Los Angeles—E. D. Maltby Co., 1940
So. Figueroa
Calif., Los Angeles—J. W. Minder Chain &
Gear, 6011 So. Central Ave.
Calif., Los Angeles—Utilities Supply Co.,
2852 Supply Ave.
Calif., Los Angeles—Victor Belting & Rubber Co., 2316 E. 38th St.
Calif., Maywood — E. D. Maltby, 4035 E.
Sand St.
Calif., Montebello — Metropolitan Supply
Co., 1153 So. Greenwood

Calif., No. Hollywood—General Industrial Tool & Supply, 12517 Sherman Way Calif., Oakland—Bearing Engineering, 1019 Harrison St.
Calif., Oakland — Bearing Specialty Co., 2424 Webster St.
Calif., Oakland —Cypress Steel & Equip. Co., 1829 Cypress St.
Calif., Oakland — Hoffmeyer Belting, 541 E. 8th St.
Calif., Oakland—Otrich Co., 3664 Grand Calif., Oakland—Yates Service Co., 336 E. 8th St.

8th St.
Calif., Rio Vista—Oilwells Materials
Calif., Sacramento—Western Industrial
Supply, 905 G St.
Calif., San Bernardino—Reliable Bearing
Co., 263 So. E St.
Calif., San Diego—E. D. Maltby Co., 745
15th St.
Calif., San

Calif., San Diego—E. D. Maltby Co., 745
15th St.
Calif., San Francisco — Bearing Specialty
Co., 128 Texas St.
Calif., San Francisco — Ralphs-Pugh Co.,
530 Howard St.
Calif., San Francisco—Yosemite Equipment
Co., 2740 Hyde St.
Calif., Santa Clara — Whitney Industrial
Drives, 2311 Lafayette St.
Calif., Santa Rosa—Reliable Hardware &
Steel. 1145 Petaluma Hill Rd.
Calif., Santa Rosa—Santa Rosa Bearing, 622
Johnson St.
Calif., South Gate — Power Transmission
Equipment, 4501 Firestone
Calif., South San Francisco — Adam Hill
Co., 142 Utah
Calif., Stockton—Bearing Sales Co., 505 So
Wilson Way
Idaho, Boise — M. R. Priest & Sons, Inc.,
525 Hyland St.
Nev., Fallon—Motor Supply Co., P. O. Box
712
Nev., Reno—Sanford Tractor Co., No. Val-

T12
Nev., Reno—Sanford Tractor Co., No. Valley Rd.
Ore., Portland—Berg-Evans Chain Co., 240
S. W. First Ave.
Utah, Salt Lake City—Schieren-Jarvis Co., 320 Dooly Bldg.
Wash., Seattle—Bearing Engr. & Supply Co., 2548 Airport Way
Wash., Seattle—Berg-Evans Chain Co., 2221
Fourth Ave. So.
Wash., Tacoma—Charles E. West & Co., 3000 So. Prospect St.

EATON MFG. CO., 739 E. 140th St., Cleveland 10, Ohio

Branch
Calif., Buena Park—LA 1-3852
Calif., La Mirada—14936 E. Tacuba
Calif., Whittier—OX 8-2453

E C & M DIV., SQUARE D CO., 4500 Lee Rd., Cleveland 28, Ohio

Calif., Los Angeles—4335 Valley Blvd. CA 1-1171

ECONOMY ENGINEERING CO., 4511 W. Lake St., Chicago 24, Ill.

Elevators (barrel, package, portable tiering), Hoists (portable), Racks, Tables, Stackers (electric portable, hand portable), Trucks, (bag, barrel, drum, die handling, elevating or lifting, paper roll, electric tiering).

Representatives
Calif., Los Angeles—McKinley Equipment
Corp., 1557 Esperanza St. AN 9-0567
Ore., Portland—A. A. Schuler, 1128 S. W.
Market St. CA 3-7901
Wash., Seattle—Burleigh Co., 5245 Pullman
Ave. F1 5245

EDERER ENGINEERING CO., 2931 First Ave. So., Seattle 4, Wash.

Cranes (charging and drawing, gantry, hand power, overhead-double beam, electric and electric traveling, foundry, handpower traveling, "I" beam, monorail, Grapples, Hoists (crane, drum, electric, monorail, traveling), Trolleys.

EDISON, THOMAS A., EDISON STORAGE BATTERY DIV., West Orange, N. J.

Storage batteries.

Branches
Calif., Pasadena—15 No. Euclid. RY 1-4339
Calif., San Francisco—1174 Howard St. HE
1-0322 Wash., Seattle-310 9th Ave. MA 2-1988

EDWARDS, E. H., CO., Butler Rd. South San Francisco, Calif. PL 6-2115

EIMCO CORP. — EXIDE DIV.

Calif., Rivera — 8454 E. Trojan St. RA 3-8845 Ore., Portland — 2690 N. W. Nicolai. CA 3-7351 Wash., Seattle—504 W. Idaho. MA 2-2218

EIMCO CORP., P. O. Box 300, Salt Lake City 10, Utah

Tractors (air, electric, diesel equipped with bull-dozers), Front and loaders, Overhead excavating loaders, Front and log loaders.

Branches
Calif., Berkeley—637 Cedar St. LA 6-6884
Colo., Grand Junction—P. O. Box 153. CH
2-9418
Mont., Butte—8112 Granite. BU 2-0653
Wash., Seattle—WE 9079

ELECTRIC MARKETEER MFG. CO., 2195 W. Hwy. 99 (at New Jersey), Redlands, Calif. Phone 3-2892

Carts (electric cars and trucks), Trailers, Trucks (industrial electric).

ELECTRIC PONY EXPRESS CO., DIV. of ROCKY MOUNTAIN STEEL, 1753 Blake Ave., Los Angeles 31, Calif. Tractors (diesel, electric warehouse, gasoline warehouse, monorail), Trailers (factory and warehouse, motor truck and tractor).

Calif., San Francisco—Ira G. Perin Co., 575 Howard. GA 1-1827 Ore., Portland—Air-Mac, Inc. Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. So. MU 3388

ELECTRIC PRODUCTS CO., 1725 Clarkstone Rd., Cleveland 12, Ohio

Battery chargers.

Ariz., Phoenix—Exide Ind., Div. ESB Co., 916 W. Adams St. AL 4-0851
Calif., Los Angeles—Exide Ind., Div. ESB Co., 1043 So. Grand Ave. RI 9-4436
Calif., San Francisco — Exide Ind., Div. ESB Co., 6150 Third St. MI 7-3100
Colo., Denver—Exide Ind., Div. ESB Co., 234 Commonwealth Bldg. MA 3-7793
Ore., Portland—Exide Ind., Div. ESB Co., 1224 S. W. Morrison St. CA 2-3778
Utah, Salt Lake City — Exide Ind., Div. ESB Co., ESB Co., P.O. Box 133, Murray Branch. EL 9-5766
Wash., Seattle—Exide Ind., Div. ESB Co., 500 Wall St. MA 3-1377
Wash., Spokane—Exide Ind., Div. ESB Co., 617 Paulsen Bldg. MA 4-1295

ELECTRIC WHEEL CO., DIV. OF FIRE-STONE TIRE & RUBBER CO., 28th St., Quincy, Ill.

Axles (trailer or truck), Trailers (factory and ware-house), Wheels (general industrial, hand truck, rubber tired, tractor, trailer).

Representative
Calif., San Francisco—Ira G. Perin Co., 575
Howard St. GA 1-1827

ELECTRO LIFT, INC., 204 Sargeant Ave., Clifton, N. J.

Hoists (drum, electric, monorail, portable, traveling, other).

See advertisement on page 72

Calif., Los Angeles—Irving G. King & Co., 821 Mateo St.

ELIZABETH IRON WORKS, INC., Green Lane, Elizabeth, N. J.

Ramps for railroad, truck and trailer use. Pallet-Staks for tiering soft crushable irregular shapes. Grab torque hook for structural steel.

Most materials handling distributors in principal Western cities.)

ELLIOTT, B. W. MFG. CO., INC., 350 State St., Binghamton, N. Y.

Industrial vibrators for hoppers, bins and chutes. Vibratory tables for packing materials in barrels and boxes. Flexible shafting for special machin-

Representatives
Calif., Los Angeles — Industrial Product
Sales Co., 1417 Georgia St.
Calif., San Francisco—Milligan-Spika Co.,
1485 Bayshore Blvd.

ELWELL-PARKER ELECTRIC CO., 4509 St. Clair Ave., Cleveland 3, Ohio

Tractors (electric warehouse), trucks (bag, barrel, drum, die handling, elevating or lifting, factory and warehouse, electric fork, industrial, gasoline lift, hydraulic lift, power-driven lift, packing house, paper roll, sheet handling, skid handling, electric tiering, other).

See advertisement on page 53

Representatives
Calif., Lynwood—J. W. Lafferty Co., 11371
So. Atlantic Ave. NE 6-1828
Calif., San Francisco—Ira G. Perin Co., 575
Howard St. GA 1-1827
Colo., Denver—Landes, Zachary & Peterson, 2500 W. Seventh St. MA 3-6203
Wash., Seattle—Colby Steel & Mfg. Co., 65
Horton St. EL 4388

EMHART MFG. CO., Portland, Conn. Standard-Knapp packaging machinery and Emhart thermoforming machinery.

Branches
Calif., Los Angeles—2705 So. Figueroa St.
RI 9-6641
Calif., San Mateo—444 Peninsular Ave. DI
2-3258
Wash., Seattle — 3222 Western Ave. AT
4-8227

Representatives
Utah, Ogden—Horsley Co., 2416 Grant Ave.
EX 3-8477

ENGINEERING PRODUCTS CO., DIV. OF LEDEEN, INC., 3350 No. Gilman Rd., El Monte, Calif.

Hoists (air, hydraulic), Load lifts, Dock levelers (air/hydraulic), pumps (hydraulic).

Ariz., Phoenix — Lee Redman Equip. Co., 610 So. 19th Ave. AL 8-3794
Calif., Bakersfield—Hopper Machine Wks., 301 26th St. Phone 4-4991
Calif., Bakersfield—Hopper Machine Wks., 301 26th St. Phone 4-4991
Calif., Eureka—Eureka Boiler Wks., Foot of S St. HI 3-1681
Calif., San Francisco—Rodman & Co., 420
Market St. YU 2-0834
Colo., Denver — Patten Engineering Co., 1745 Blake St. TA 5-3545
Nev., Reno — Sierra Machinery Co., 307
Morrill Ave. Phone 2-6981
Ore., Eugene — American Steel & Supply Co., 44 7th Ave. E. Phone 5-0373
Ore., Medford—American Steel & Supply 703 Grape. Phone 2-7181
Ore., North Bend—Industrial Steel & Supply Co., P. O. Box 824. SK 9-2731
Utah, Salt Lake City—National Equipment Co., 101 W. 2nd So. St. EM 3-8878
Wash., Seattle—Standard Equipment Sales, 1331 1st Ave. SE 1955
Wash., Spokane—General Machinery Co., E. 3500 Riverside Ave. KE 1535

ENSIGN CARBURETOR CO., 415 E. Orangethorpe Ave., Fullerton, Calif. L.P. Gas carburetion equipment.

LP. Ges carburetion equipment.

Representatives

Ariz., Phoenix — Butane Corp., 1627 W. Camelback Rd.

Calif., Fresno — Winther Bros., Inc., 612
 Divisadero St.

Calif., Long Beach — Industrial Power & Equipment Co., 3188 Orange Ave.

Colo., Denver—Spitzer Industrial Products Co., 43 W. Ninth Ave.

Ore., Portland — Oregon Gas Equipment Co., 4705 No. Albina

Utah, Salt Lake City—Diesel Electric Service & Supply Co., 652 W. 17th So.

Wash., Seattle — Petrolane Liquefied Gas Service, 9611 E. Marginal Way

Wash., Spokane — Suburban Gas Service, 7909 E. Sprague Ave.

Wyo., Casper — Auto Electric Equipment Co., 344 No. McKinley.

EQUIPMENT MANUFACTURING INC., 21550 Hoover Rd., Detroit 5, Mich.

Bins, boxes for shipping (steel) racks, pallet coil and stacking types, railroad shipping, car equipping).

Representatives

Ariz., Phoenix—C. M. Bergen Co., 3825 W. Indian School Rd. AP 8-5574
Calif., Los Angeles—Green-Penny Co., 421 E. Washington Blvd. RI 8-1191
Calif., Oakland—Green-Penny Co., 2211
San Pablo Ave. GL 1-8555
Colo., Denver—Landes, Zachary & Peterson Co., 601 So. Jason St. MA 3-6203
Idaho, Idaho Falls—Arnold Machinery Co., Inc., 1265 W. Broadway. JA 3-0822
N. Mex., Albuquerque—E. D. Flournoy Co., 606 Silver, S. W. CH 3-1055
Utah, Salt Lake City—Arnold Machinery Co., Inc., 433 W. Second So. St. DA 2-5631

Co., 1 2-5631 Wash., Seattle—Burleigh Co., 5245 Pullman Ave.

Wash., Seattle — Charles Industrial Sales Co., 5201 First Ave. So. LA 6010

EQUIPTO DIV., AURORA EQUIP-MENT CO., 422 Cleveland, Aurora,

Bins, Carts (hand, push, other), racks (storage), Trucks (hand).

Branches
Calif., Los Angeles—2501 Yates. RA 3-4529
Colo., Denver—1126 12th St. KE 4-8857

Representatives
Calif., Hayward — Charles L. Ross, 26216
Coleman Ave. JE 7-9164
Wash., Seattle — Burt C. Porter, 1209 Pop-lar Pl. EA 3-8330

ERICKSON POWER LIFT TRUCKS, INC., 211 St. Anthony Blvd., Minneapolis 18, Minn.

Pnaumatic-tired fork trucks (gasoline, LPG), 2000-8000-lb. capacity low lift and high lift platform trucks (gasoline, LPG), 5000-30000-lb. capacity straddle carts (powered), industrial baggage and personnel trucks (powered).

Calif., South Gate—Western Material Handling Corp., 8660 Atlantic Ave. Mont., Billings—Industrial Equipment Co., 1800 Sixth Ave., No.

N. Me x., Albuquerque — Roadrummer Equipment Co., 143 Coors Blvd., S.W. Utah, Salt Lake City—Pearce Equipment & Steel Co., 1225 Beck St.

Wyo., Cheyenne — Wilson Equipment Co., 730 So. Greeley Hwy.

ERIEZ MFG. CO., 1945 Grove Dr., Erie, Pa.

Magnets, Separators, Vibrators (bin).

Magnen, Separators, Vibrators (bin).

Representatives
Calif., La Mirada—R. A. Roosevelt Co., P.O.
Box 236. RA 3-3510
Calif., San Francisco — Power-Mac Corp.,
467 So. Van Ness Ave. UN 1-1430
Colo., Denver — Alldredge & McCabe, 847
E. 17th Ave. AL 5-7496
Ore., Portland—Fred G. Greaves Co., 400
Concord Bidg. CA 8-9211
Wash., Seattle—Fred G. Greaves Co., 418
Eighth Ave. No. EL 0680
Wash., Spokane—Fred G. Greaves Co., 1207
W. College. FA 5-0480

EVANS PRODUCTS CO., 13101 Eckles Rd., Plymouth, Mich. Evans DF loader, Auto-loader.

Branch
Calif., Los Angeles—615 W. P. Story Bldg
VA 9564

EXACT WEIGHT SCALE CO., 538 E. Town St., Columbus 15, Ohio Scales (automatic, conveyor, counting, packaging, portable, gross and net weighing machines).

Factory Representatives
Ariz., Phoenix—710 So. 35th Ave. AP 8-3581
Calif., Los Angeles—Wilshire-LaBrea. WE
1-8487
Calif. C. T. alif., San Francisco—236 Fremont St. GA 1-7007 Calif Colo., Denver-1540 Wazee St. AC 2-5651

EXIDE INDUSTRIAL DIV., THE ELEC-TRIC STORAGE BATTERY CO., Rising Sun and Adams Aves., Philadelphia 20, Pa.

Exide-Ironclad batteries for industrial trucks and tractors, Exide battery chargers, Exide lightguards for emergency lighting.

F. A. B. MFG. CO. - FLEXANGLE CORP.

Calif., Los Angeles—1043 So. Grand Ave. RI 9-4436 Calif., San Francisco—6150 Third St. MI 7-3100 7-3100 Colo., Denver — 234 Commonwealth Bldg. MA 3-7793 Ore., Portland — 1224 S. W. Morrison St. CA 2-3778

Wash., Seattle-500 Wall St. MA 3-1377

F. A. B. MFG. CO., 1249 67th St., Oakland 8, Calif. OL 2-0220

Axles (truck, trailer, front wheel drive conversions). Trailers (motor truck and tractor). Trucks

(meter).

Representatives

Ariz., Phoenix — Welch Mfg. Co., 533 W. Jefferson St. Phone 3-3002

Calif., Oakland — Fabce Equipment Co., 1249 67th St. OL 5-6384

Colo., Denver—Woeber Auto Body & Mfg. Co., 4950 Jackson St. FL 2366

Idaho, Boise—Boise-White Truck & Equipment Co., 914 Royal Ave. Phone 2-3666

Mont. Great Falls—Erwin H. Johnson, Inc., 1020 Third St. N. W. Phone 6-6662

N. Mex., Albuquerque—Winter-Weiss Co., 6130 No. Second St. Phone 4-3421

Ore. Portland — Northwest Truckstell Sales, Inc., 835 S. E. Hawthorne Blvd. BE 2-1114

Utah, Sali Lake City—Williamsen's, Inc.,

BE 2-1114
Utah, Salt Lake City—Williamsen's, Inc., 1103 So. Sixth St. Phone 22-5658
Wash., Seattle—Truck Welding & Equipment Co., 737 Ninth Ave. No. EL 1172
Wash., Spokane—American Machine Co., W. 1026 Broadway. FA 2591

FAB-WELD CORP., P. O. Box 1447, Lackawanna County, Simpson, Pa. Boxes (tote), Carts (hand and push), Dock Boards, Grabs, Hoppers, Pallets, Racks (pallet, storage), Skide, Tongs, Trailers (factory and warehouse). Trucks (die handling, dolly, hand).

Representatives
Calif., Los Angeles — Storage Racks Systems, Inc., 5141 Telegraph Rd.
Calif., San Francisco — Ira G. Perin Co., 575 Howard St. GA 1-1827
Colo., Denver—Woodriff Bros., 610 Cooper Dide TA 2913. Colo., Denver—Woodriff Bros., 610 Cooper Bldg. TA 2913 Wash., Seattle—Timmerman Equip. Co., 1310-12 Western Ave. MU 2767

FAIRBANKS CO., THE, 393 Lafayette St., New York 3, N. Y.

Casters (industrial, steel and semi-steel), Two-wheel and platform hand trucks (steel framed and all metal), Wheels (caster and hand truck).

See advertisement on page 155

Representative
Calif., Los Angeles—Albert Tuch & Assoc.,
9237½ Doheny Rd. BR 2-5974

FAIRBANKS, MORSE & CO., 600 So. Michigan Ave., Chicago 5, Ill.

Pumps (liquid handling), Scales (automatic, conveyor, counting, portable, warehouse).

Calif., Los Angeles—4535 So. Soto St. LU
7-8151
Calif., San Francisco—630 Third St. EX
2-5855 Colo., Denver — 4995 Colorado Blvd. FR 7-8845 7-8845 Ore., Portland—105 S. E. Taylor St. BE 2-0131 Utah, Salt Lake City—153 W. 2nd So. St. EM 3-5139 Wash., Seattle—668 Lane St. MU 3450 Portland-105 S. E. Taylor St. BE

FAIRFIELD ENGINEERING CO., 324 Barnhart St., Marion, Ohio

Coal and ash handling equipment, Elevators, Con-veyors, Skip hoists, Tile ailos, Steel storage bunk-ers, Unit and bulk material handling systems, Port-able conveying equipment.

Representatives
Calif., South Gate—Cost Reduction Equipment Co., 5200 Chakemco St. LO 7-2487
Colo., Denver—Hank Thurstin Co., 475
Acoma St. RA 2-4689

FALK CORP., 3073 W. Canal St., Milwaukee 1, Wis.

Motoreducers, Shaft-mounted drives, Speed re-ducers, Couplings (shaft), Flexible, high speed drives, Special gear drives, Single helical and

harringbone gears, Marine propulsion drives, Castings (steel), Weldments.

Los Angeles — 1068 So. Vail. RA Calif., 3-8466 Colo., Denver — 655 Broadway Bldg. AC 2-4707

Representatives
Calif., San Francisco—Transmission Engineering Co., 427 Bryant St. SU 1-4738
Ore., Portland—Western Machinery Corp., 1035 S. E. Ninth Ave. BE 6-4117
Wash., Seattle—A. T. Harris Co., 1500 Westlake No. AT 3-8460

FARQUHAR, A. B., DIV., OLIVER CORP., 142 No. Duke St., York, Pa. Portable or permanent, elevating or horizontal for bulk or packaged material, and "Roll-Free" grav-ity roller and wheel conveyors.

Calif., Los Angeles—Brumley-Donaldson Co., P.O. Box 58281, Vernon Sta. Calif., Los Angeles—Irving G. King Co., 821 Mateo St. Calif., Los Angeles—Irving G. King Co., 821 Mateo St.
Calif., Oakland—Brumley-Donaldson Co., 75 Market St.
Calif., San Francisco—Bodinson Mfg. Co., 2401 Bayshore Blvd.
Colo., Denver — Joe Coursey Equipment Co., 2470 Broadway
Idaho, Idaho Falls—Arnold Machinery Co., Inc., 1302 W. Broadway.
Mont., Billings—Great Northern Tool & Supply Co., 2224 Minnesota Ave.
Mont., Great Falls—Carl Weissman & Sons, Inc., 300 Third Ave. So.
N. Mex., Albuquerque—Pipkin Refrigeration & Kitchen Equipment, 317 Wellesley Pl., N. E.
Ore., Portland—F. E. Bennett Co., 626 W. Sixth Ave.
Utah, Salt Lake City—Arnold Machinery Co., Inc., P.O. Box 2220.
Wash., Seattle—Adelman Machinery Co., 250 First Ave. So.
Wash., Seattle—Charles Industrial Sales Co., 520 First Ave. So.
Wash., Seattle—Lifttruck & Equipment, Inc., 538 First Ave. So.
FAUILTESS CASTER CORP. 1427

FAULTLESS CASTER CORP., 1427 No. Garvin, Evansville 7, Ind.

Casters, Wheels (general industrial, hand truck, rubber tired, trailer), Floor truck locks.

Calif., Los Angeles—1252 So. Boyle. AN 8-7243 Ore., Portland—3005 N. E. Sandy Blvd. BE 4-8515

A-8515

Representatives
Calif., Los Angeles — Garrett Supply Co., 3844 So. Santa Fe Ave. LU 8-7221
Calif., San Francisco — C. W. Marwedel, 1235 Mission St. UN 1-2125
Colo., Denver—Armstrong Caster Co., 465
Santa Fe Dr. AC 2-3777
Ore., Portand—John Negus Co., 3005 N. E. Sandy Blvd. BE 4-8515
Wash., Seattle—John Negus Co., 1016 First Ave. So. EL 5006, Local 16

FEDERAL FIBRE CORP., 3704 Tenth St., Long Island City 1, N. Y.

Fedce tote boxes, mill boxes, box trucks, conveyor boxes, under-counter receptacles, Fiberock waste receptacles, Heavy-duty utility wheel cans.

Waste receptacles, Heavy-duty utility wheel cans.

Representatives
Calif., Los Angeles—Golden Bear Equipment Corp., 2505 So. Garfield Ave.
Calif., Los Angeles—Kirby Sales Co., 841
E. Fourth Pl. MU 8337
Calif., Oakland — Keene-Riese Co., 430
Ninth St.
Calif., San Francisco—Colberg Supplies, 777 Golden Gate Ave.
Calif., San Francisco—Hockwald Chemical Co., 135 Mississippi St.
Calif., San Francisco—Kirby Sales Co., 25
Van Ness Ave. UN 1-5018
Calif., San Francisco—Paul Koss Supply Co., 900 Folsom St.
Ore., Portland—Kirby Sales Co., 411 Weatherly Bldg.

FEEDRAIL CORP., 125 Barclay St., New York 7, N. Y.

Electrification Systems for cranes, hoists, conveyor test lines, stackers, etc.

Representatives

Calif., Los Angeles—Allied Industries, Inc.,
412 Seaton St. MA 3-2244

Colo., Denver—T. J. Vieau & Assoc., 1871
S. Broadway. SP 7-8932

Wash., Seattle—E. A. Will, 534 First Ave.
MA 3-2716

FERGUSON, HARRY J., CO., 115 West Ave., Jenkintown, Pa.

Conveyors (belt, chain or link, gravity roller, live roller, pallet, portable, skate, slat), Rollers (con-veyor), Wheels (conveyor).

Calif., Los Angeles—W. T. Billard Co., 734
E. Third St.
Calif., San Francisco—Warehouse Equip. & Supply, 471 Fulton St.
ore., Portland—Charles H. Day Co., 225
S. W. First Ave.
Utah, Salt Lake City—Equipment Supply, 16 Post Office Place
Wash., Seattle—Air-Mac Equipment Co., 3838 Fourth Ave. So.

FIBREBOARD PAPER PRODUCTS CORP., 475 Brannan St., San Francisco 19, Calif. EX 2-3657

Boxes for shipping (corrugated, fibre and fibre board), Baskets (fibre), Packing material.

Calif., Fresno—Suite 5, 64 No. Fulton St. AM 8-5566 Calif., Oakland—290 26th St. TW 8-5041 Calif., Sacramento—2008 28th St. GL 7-5733 Calif., San Jose — 1275 Lincoln Ave. CY 3-8343 Calif., San Francisco—1789 Montgomery St. DO 2-6900

See advertisement on page 29

Calif., Stockton-West Church St. HO 4-2837 2837
Colo., Denver—2525 So. Delaware St. SH
4-3251
Idaho, Boise—402 Continental Bank Bldg.
Phone 4-3842
Mont., Billings—202 M & R Bldg. Phone
2-3075
Ore., Portland — 401-403 Terminal Sales
Bldg. CA 8-3153
Utah, Salt Lake City — 319 Kearns Bldg.
EM 4-7721
Wash., Seattle—300 Skinner Bldg. MU 0440 Wash., Seattle—300 Skinner Bldg. MU 0440 Wash., Yakima—415 So. 3rd Ave. GL 3-5656

FIELD ENGINEERING PRODUCTS CO., 66 Foote Ave., Jamestown, N. Y.

Hydraulic level loading platforms, Hydraulic operated dock ramps, Hydraulic operated elevators.

Calif., Oakland—E. H. Buehrer Assoc., 253
Fourth St.
Colo., Denver—Plant Equipment Co., 1400
Market St.
N. Mex., Albuquerque—E. D. Flourney, 217
Sixth St., S. W. Sixth St., S. W. Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. So.

FIRESTONE TIRE & RUBBER CO., see ELECTRIC WHEEL CO., a div.

FISCHBEIN, DAVE, CO., 2720 30th Ave., So., Minneapolis 6, Minn. Stitching and Stitching Equipment.

Representatives
Calif., San Gabriel—R. D. Helms Co., 8456
E. Las Tunas Dr. AT 6-5363
Calif., San Mateo—California Mill & Equipment Co., P. O. Box 1115. FI 1-3481
Colo., Denver—E. P. Segeistrom, 1075 Locust St. MI 5-3971
Idaho, Twin Falls—C. Kenneth Brown, 401
Shoshone St. So. ST 1-9561
Ore., Portland—Reid-Strutt Co., Inc., 1015
S. E. Stark St. BE 4-5011

FLEXANGLE CORP., 3760 Oakwood Ave., Youngstown 1, Ohio

Racks (Flexangle universal slotted angle system for storage).

Representatives

Calif., Long Beach — American Wholesale Hardware Co., 1500 W. Anaheim St.

Calif., Los Angeles — Andrey Co., 2479
Fletcher Dr. NO 4-1149

Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza St.

Calif., Los Angeles — Utilities Supply Co., 2852 Supply Ave.

Calif., San Francisco — Elder & Co., 333
Seventh St.

Ore., Portland — Portland Wire & Steel Warehouse, 4706 S. E. 18th Ave.

Wash., Seattle—Stack Steel & Supply Co., 500 Lander St.

FLEXIBLE TUBING CORP., New Whitfield St., Guilford, Conn.

Spiratube, flexible non-metallic material handling

Branch

Calif., Anaheim — 305 Crescent Way. PR 4-9934

FLEXIBLE STEEL LACING CO., 4607 Lexington St., Chicago 44, III.

Conveyor and transmission belt fasteners, V-belt fasteners, Belt cutters, Belt clamps.

Calif., San Mateo—James E. McComb, 10 Jody Court. FI 5-8057 Wash., Seattle—John A. Marshall, 2403 W. 197th St. LI 593

FLEXOVEYOR MFG. CO., 1220 So. Acoma St., Denver 23, Colo. RA

Bog flatteners, Conveyors (automatic, bag and bale, belt, pallet, portable, special and other), Elevators (boxrel, package, other), Loaders (box car, truck, portable, self-propelled), Pallet loaders

FOOD MACHINERY & CHEMICAL CORP., see JOHN BEAN DIV.

FOOD MACHINERY & CHEMICAL CORP., PACKING EQUIPMENT DIV.,

3075 14th St., Riverside, Calif.

Belting (conveyor), Conveyors (automatic, bag and bale, belt, chain or link, continuous flow, flight gravity roller, live roller, overhead, pallet, perhable, skate, slat, special and other), Nailing machines (box and pallet making), Palletizer (automatic), Counters (recording), Rollers (conveyor), Trucks (bulk grain handling, hand, packing house), Wheels (conveyor, hand truck, rubber tired), Pallet leaders.

Phoenix—1450 E. Henshaw Rd. AL 4-7118 alif., Fullerton — 320 E. Santa Fe. LA 5-4723 Fullerton — 813 So. Cedar St. RA Calif. 3-2122 Calif., Lindsay — 124 W. Apia St. Phone 2-2508

See advertisement on page 150

Calif., Lodi—32 So. Main St. Phone 9-2196 Calif., Los Altos — 11320 Entrada Pl. WH 8-5218 Calif., Santa Paula — 1409 E. Main St. Phone 1560

FORKER CORP., 2044 Random Rd., Cleveland 6, Ohio

Cranes (gantry, hand power, jib, pillar, swing, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, monorail overhead). Hoists (air, chain, crane, electric, hand, monorail, traveling),

Calif., San Francisco-Stryco Mfg. Co., 470 Natoma St. SU 1-8310 Colo., Denver-Ohio Tramrail Denver Co., 2533 19th St. GL 5-6321

FORT WORTH STEEL & MACHINERY CO., 3600 McCart St., Fort Worth 1,

Screw conveyors, Screw elevators, Industrial fans, Wholly engineered systems, both mechanical and pneumatic, for handling bulk materials.

Calif., Los Angeles—3026 E. Olympic Blvd. AN 3-6128 Calif., So. San Francisco—307 Corey Way. JU 9-2585

Ariz., Phoenix—Harris Bearing & Supply, 729 E. Henshaw Rd.
Ariz., Prescott—Arizona General Supply, 0.0, P.O. Box 110.
Ariz., Tucson—AWECO Supply Co., 800 So.
Park Ave. MA 4-1781
Ariz., Tuma—Sturges Implement Co., 355
Eighth St.

Calif., Anaheim—Eureka Bearing & Supply Co., 502 So. Los Angeles St.
Calif., Anaheim—Western Belting & Mechanicals, Inc., 411 A Orangethorpe.
Calif., Bakerstield—BA-Valley Industrial Supply, 141 First St.
Calif., Calexico—Baleros Del Valle, P.O. Box 672.
Calif., Colton — Valley Industrial Supply Co., Inc., 401 So. Eighth St.
Calif., El Centro—W. H. Douthitt Steel & Supply Co., Rt. 1, Box 183.
Calif., El Centro—McDonald Mill & Supply, P.O. Box 1674.
Calif., Escondido—George & Krogh Welding Service, Hwy. 395 at Hill, Rt. 2, Box 293.
Calif., Fresno—George M. Philpott, 2376
Railroad Ave.

ing Service, Hwy. 395 at Hill, Rt. 2, Box 293.
Calif., Fresno—George M. Philpott, 2376 Railroad Ave.
Calif., Huntington Park — Me c h a n i c a l Drives Co., 2516 E. 54th St.
Calif., La Habra—Convator Co., 135 W. Central Ave.
Calif., Long Beach—Bay City Bearing Co., 709 W. 16th St.
Calif., Long Beach—Power Pumps, Inc., 2480 Cherry Ave.
Calif., Los Angeles—BB Supply Co., 4849 Telegraph Rd.
Calif., Los Angeles—Bearing Specialty Co., 225 W. 27th St.
Calif., Los Angeles—Garrett Supply Co., 3844 So. Santa Fe Ave.
Calif., Los Angeles—Garrett Supply Co., 3844 So. Santa Fe Ave.
Calif., Los Angeles—Hendrie Belting & Rubber Co., 405 So. Towne Ave.
Calif., Los Angeles—Hendrie Belting & Mechanicals, Inc., 3525 E. Emery St.
Calif., Maywood—Bay City Bearing Co., 5275 Atlantic Blyd.
Calif., Maywood—Bay City Bearing Co., 717 Eye St.
Calif., Odekland—Adam-Hill Co., 7501 San Leandro St.

Calif., Modesto—Girardi Bearing Co., 717
Eye St.
Calif., Oakland—Adam-Hill Co., 7501 San
Leandro St.
Calif., Oakland—C. W. Marwedel Co., 11th
& Alice Sts.
Calif., Oakland—C. W. Marwedel Co., 11th
& Alice Sts.
Calif., Oakland—C. W. Marwedel Co., 11th
& Alice Sts.
Calif., Oakland—C. W. Marwedel Co., 177
E. Second.
Calif., Fiverside—Reliable Bearing Co., 777
E. Second.
Calif., Riverside—Reliable Bearing Co., 3545 Main St.
Calif., Sacramento—George M. Philpott
Co., 6260 Folsom Blvd.
Calif., Salinas—Girardi Bearing Co., 257
John St.
Calif., San Bernardino—Reliable Bearing
Co., 263 So. E St.
Calif., San Francisco—C. W. Marwedel Co., 1235 Mission St.
Calif., San Francisco—C. W. Marwedel Co., 1235 Mission St.
Calif., Santa Ana—Santa Ana Electric Motor Service, 1212 W. First St.
Calif., Santa Clara—Whitney Industrial Drives, 2311 Lafayette St.
Calif., South San Francisco—Adam-Hill
Co., 142 Utah Ave.
Calif., Stockton—Stockton Bearing Co., 443
So. Wilson Way.
Calif., Yuba City—Schmidt Pump House & Machine Shop, 720 Bridge St.
Colo., Denver—Colorado Bearing Co., 1618
Wazee St.
Colo., Denver—Power Transmission Co., 4665 Jackson St.
Colo., Grand Junction—Bearings & Power Transmission Co., 761 So. Seventh St.
Colo., Sterling—Hettinger Welding & Supply Co., 325 So. Front St.
Ore., Portland—Power Transmission Products, 1107 N.W. 14th Ave.
Nev., Las Vegas—Inland Service & Supply Co., 300 W. Wyoming St.
N. Mex., Albuquerque—Mine Supply Co., 314 Industrial Ave., N.E.
N. Mex., Albuquerque—Mine Supply Co., 321 E. Main.
N. Mex., Farmington—Gaso Pump & Burner Mfg. Co., 416 W. Broadway
N. Mex., Farmington—Justis Supply Co., 402-60-7 W. Broadway
N. Mex., Farmington—Justis Supply Co., 405-7 W. Broadway
N. Mex., Farmington—Justis Supply Co., 405-7 W. Broadway

Burner and Mex., Farmington—Jussia N. Mex., Farmington—Jussia 821 E. Main. N. Mex., Hobbs—Barnes Auto Electric Co., 405-7 W. Broadway. Wyo., Casper—Industrial Distributors, Box

FOSTER, L. B., CO., P. O. Box 548, Carnegie 22, Pa.

Steel sheet piling, H-bearing pile and pipe foun-dation pile, prime and structural grade steel pipe, railroad rail and track accessories, aluminum bridge rail, metal beam highway guard rail.

See advertisement on page 160

Calif., Los Angeles — 3540 Wilshire Blvd.

FRANKLIN COTTON MILL CO., THE, 1108 Central Parkway, Cincinnati Belting (cotton, solid woven).

Representatives
Distributors located in all major Western

FRENCH & HECHT DIV., KELSEY HAYES CO., 523 E. Third St., Davenport, lowa

Axles (trailer or truck), Trailers (factory and ware-house), Wheels (general industrial, hand truck, rubber truck, rubber tired, tractor, trailer).

Calif., Los Angeles—Motor Rim & Wheel Service, 2860 E. Pico. AN 9-7561 Calif., San Francisco—Motor Rim & Wheel Service, 3075 17th St. UN 3-2590 Colo., Denver—Quinn & McGill Motor Supply, 437 Broadway. SP 7-4431 Ore.. Portland—Auto Wheel Service, 330 N.W. Tenth Ave. CA 8-9346 Utah, Salt Lake City—Henderson Rim & Wheel Service, 32 E. Fifth So. Phone 3-6746

3-6746 Wash., Spokane—Bearing & Rim Supply Co., W. 1202 Second. MA 2185 Wash., Seattle—Motor Wheel & Parts Co., 652 Elliott Ave. W. MU 7005

FRICK-GALLAGHER MFG. CO., 250 So. Broad St., Philadelphia, Pa.

Steel shelves, Pallet and warehouse racks, Parts

Branch
Calif., Oakland—1801 E. 14th St. KE 3-4123

Representatives
Ore., Portland—Air-Mac, Inc., 1111 S. E. Grand Ave. BE 4-6524
Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. So. MU 3388
Wash., Spokane — Air-Mac, Inc., E. 3710
Trent Ave. KE 0561

FROMMELT INDUSTRIES, 290-298 Main St., Dubuque, Iowa

Car-Dox all-weather dock shelter, Saf-T-Cone for

Representatives
Calif., Alhambra—Geo. H. Prescott, 825 So. Fremont Ave. Colo., Denver-Murray Sales Co., 16 Wazee

FRONTIER MFG. CO., 11200 Hines Blvd., Dallas 20, Texas

Steel storage shelving, Bins, Work benches, Allied steel equipment.

Phoenix—8325 No. Ninth Ave. AL Ariz., Phoenix—8325 No. Ninth Ave. AL 4-8831 Calif., Los Angeles—4891 Huntington Dr. No. CA 2-7197 Colo., Denver—2011 Glenarm Pl. KE 4-4501 Wash., Seattle—174 Denny Way. MA 2-0525

GALLOWAY, G. W., CO., 220 So. First Ave., Arcadia, Calif. HI 6-2107, RY 1-5676

Electric operated hydraulic hoists and maintenance lifts.

Calif., San Francisco—All West Wire Products Co., 2298 Jerrold Ave. AT 8-4570 Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. So. MU 3388

GAR-BRO MFG. CO., 2415 E. Washington Blvd., Los Angeles 21, Calif.

Carts, Hoppers, Trailers, Trucks (dolly, factory and warehouse, hand, motorized hand), Wheelbarrows (industrial), Wheels (conveyor, general industrial, hand truck, rubber tired, tractor, trailer).

Representatives

Representatives
Calif., Los Angeles—Garlinghouse, Fremon & Co., 6046 E. Washington Blvd. RA 3-8686
Calif., San Francisco—Edw. R. Bacon Co., 17th and Folsom. HE 1-3700
Ore., Portland—Loggers & Contractors Machinery Co., 240 So. Clay. BE 2-0151
Utah, Salt Lake City—Arnold Machinery Co., 433 W. Second So. St. Phone 22-5631
Wash., Seattle—A. H. Cox & Co., 1737 First Ave. So. MA 1121

GAR-WOOD — GOULDS PUMPS

GAR WOOD INDUSTRIES, INC., 36253 Michigan Ave., Wayne, Mich. Hoists and bodies, Winches and cranes.

Calif., Richmond—Fourth and Wright St. BE 4-3914

Representatives
Calif., Bakersfield—California Truck & Industrial Equipment Co., 2801 Brundage Lane
Calif., Fresno 8—Ruckstell California Sales
Co., 452 W. Yolo St.
Calif., Los Angeles — Gar Wood-Los Angeles Truck Equipment, Inc., 4515 So. Soto St. LU 3-3211
Calif., Pomona—Win Ward Co., 962 Price St.

Calif., Pomona—Win Ward Co., 96z Price St.
St. Calif., San Diego 13—Utility Trailer Sales Co., 1950 Main St.
Colo., Denver—Woeber Auto Body & Manufacturing Co., 4950 Jackson St.
Colo., Grand Junction—S & M Supply Co., Inc., 735 So. Fourth
Hawaii, Honolulu—Home Welding Co. Ltd., 835 Keeaumoku St.
Idaho, Boise — The Sawtooth Co., 1115
Grove St.

Idaho, Boise — The Sawtooth Co., 1113
Grove St.
Mont., Great Falls—Erwin H. Johnson Inc., 1620 Third St.
New., Reno — Sierra Machinery Co., Inc., 307 Morrill Ave.
N. Mex., Albuquerque—Construction Machinery Co., 2601 Second St.
Ore., Portland 22 — Fruehauf Trailer Co., 16700 S. E. McLaughlin Blvd.
Utah, Salt Lake City — Pearce Equipment & Steel Co., 1225 Beck St.
Wash., Seattle—Fruehauf Trailer Co., 2411 Sixth Ave., So.
Wash., Spokane—Fruehauf Trailer Co., 1107
W. Third St.

Sixth Avanae Fruenau Wash, Spokane Fruenau W. Third St. Wyo., Casper — Studer Tractor & Equipment Co., E. Yellowstone Hwy.

GARDNER-DENVER CO., Front St., Quincy, Ill.

Hoists (air, drum), Pumps (liquid handling), Vibra-

Calif., Los Angeles—7654 E. Slauson Ave. RA 3-8711 Calif., San Francisco—811 Folsom St. EX 2-8747 Colo., Denver—1727 E. 39th Ave. AC 2-9393 Idaho, Wallace—407 Seventh St. Phone 1139 Mont, Butte—215 E. Park St. Phone 2-2662 Utah, Salt Lake City—113 W. Second So. St. EM 4-3202 Wash., Seattle-615 Eighth Ave. SE 1115

GATES RUBBER CO., 999 So. Broadway, Denver 17, Colo. SH 4-1911 Belting (fabric, canvas, endless, wire, other), Hose, Ropes, Sheaves, Tires.

Los Angeles—2850 E. 46th St. LU Calif., 8-9221 5-9221 Calif., South San Francisco—242 Shaw Inc. PL 6-3711 Ore., Portland—2551 N.W. 30th Ave. CA 2-9841 Trank, Salt Lake City—748 Genesee Ave. Utah, Salt Lake City—748 Genesee Ave. Wash., Seattle—3221 Western Ave. GA 3333

GAYLORD CONTAINER CORP., DIV. OF CROWN ZELLERBACH CORP.,

111 No. Fourth St., St. Louis 2, Mo. Barrels for shipping (corrugated), Baskets (corrugated), Boxes for shipping (corrugated and fibre and fibre boxed), Tote boxes (fibre).

Calif., Antioch—Gaylord plant. Calif., Los Angeles—230 W. 30th St. RI 9-6388 Calif Fresno-Rm. 517, 1044 Fulton St. AD Galif., Oakland—9029 San Leandro. TR 2-T741 Calif., San Francisco—420 Market St. YU 6-1268 Ore., Portland—1400 Public Service Bldg. CA 3-0757 Wash., Seattle — 719 White-Henry-Stuart Bldg. SE 6922

GENERAL ELECTRIC CO., INDUS-TRIAL ELECTRONICS DIV., P. O. Box 4098, Lynchburg, Va.

Mobile two-way communication equipment

Ariz., Phoenix — 1102 No. 22nd Ave. AL 8-6721

Calif., Los Angeles—1722 Westwood Blvd. BR 2-0948 Calif., Redwood City—565 Broadway St. EM 8-4681 Calif., San Rafael — 2052 Fourth St. GL Calif., 8 6-2366 Portland-2929 N. W. 29th Ave. CA 0-0251 Utah, Salt Lake City—2518 So. State St. HU 4-5203 Wash., Seattle—220 Dawson St. PA 5-9830 Wash., Spokane—So. 162 Post St. TE 8-3621

GENERAL NAILING MACHINE CORP., 1324 Academy Ave., Sanger, Calif. TR 5-2545

Box making machines, Box lidders, Conveyors (automatic, belt, bucket, chain or link, centinuous flow, flight, gravity roller, overhead, portable, skate, vibrating), Elevatiors (belt, bucket, continuous flow), Hoppers, Idlers (conveyor), Marking equipment, Packaging machinery, Pulleys (conveyor), Rollers (conveyor), Scales (automatic, conveyor, counting, packaging, portable), Tables (conveying), Vibrators, Wheels (conveyor).

Representatives
Calif., Lodi-M. C. Locke, 111 Cross St. Phone 8-0114
Calif., Riverside—Shippers Supply Service, 3355 Arlington Dr. OV 3-5175
Colo., Grand Junction—Western Lumber Ind., 2761 Highway 50. CH 2-0251
Ore., Medford—Kay Paper Prod., 725 So. Grape. SP 2-9813
Wash., Yakima—Paxton Sales Corp., 102
No. Seventh Ave. Phone 3-7884 Phone 8-0114

GERLINGER CARRIER CO, Lyle and Birch Sts., Dallas, Ore. MA 3-2391 Trucks (hydraulic lift, power-driven lift, straddle).

Calif., Oakland—T. G. Fork Lift Sales Co., 699 Fourth St. TW 3-3668 Calif., Van Nuys — Power Equipment Co., 15220 Erwin St. ST 5-6561 Colo., Denver—Case Material Handling Co., 2855 W. 8th Ave. AL 5-3984 Ore., Portland — Air-Mac, Inc., 1111 S. E. Grand Ave. BE 4-6524 Utah, Ogden—Horsiey Co., 2416 Grant Ave. EX 3-847? Wash., Seattle—Air-Mac EX 3-8477
Wash., Seattle—Air-Mac, Inc., 3838 Fourth
Ave. S.o. MU 2-3388
Wash., Spokane — Air-Mac, Inc., E. 3710
Trent Ave. KE 5-2005
Wash., Yakima — Air-Mac, Inc., 313 No.
Grandview. GL 2-1552

GERRARD, A. J., CO., 1950 Hawthorne Ave., Melrose Park, III.

Strapping and strapping equipment, Tape (packaging, pressure sensitive).

Branches
Calif., Los Angeles—4293 Bandini Blvd. AN 8-2858 Calif., San Leandro—14388 Washington St. EL 1-9020 Ore., Portland—6840 S.W. Macadam. CH 4-

Representatives

Ariz., Phoenix—Kistier Industrial Service,
902 So. Central. AL 8-7196
Calif., San Leandro—Ray Guarasci, 420
Thornally Dr.
Calif., Whittier—Norman Shabaz, 10902
Groveside Ave. OW 7-4905
Wash., Seattle—Richard
Fifth Ave., N.E. MA 4898

GLEASON CORP., 250 No. 12th St., Milwaukee 3, Wis.

Wheels (semi-pneumatic, steel disc), Casters.

Representatives
Calif., San Francisco 22—Phil Payton, 1790
34th St. MO 4-5066
Calif., Santa Fe Springs—James Boal, 11725
Clarkman Ave. TO 3-0960
Ore., Portland—Beaver Sales Co., 134 S.E.
Taylor St. BE 2-3107
Utah, Salt Lake City—J. H. Nicodemus, 230
So. 4th St. W. EM 3-5587

GLOBE HOIST CO., E. Mermaid Lane at Queen St., Philadelphia 18, Pa. Hoists (electric, hydraulic, portable), Jacks (hydraulic), Platforms, Ramps.

See advertisement on page 125

Calif., Long Beach—1461 Canal Ave. HE 2-5431

GLOBE WOVEN BELTING CO., INC., 1400 Clinton St., Buffalo, N. Y.

Belting (composition, conveyor, fabric, canvas, elevator, endless, Neoprene, Hycar).

Representatives
(Contact manufacturer for representative in your area.)

GODDEYNE WHEEL PRODUCTS, 1300 No. McLellan, Bay City, Mich. Casters, Wheels (general industrial, hand truck. rubber tired).

Representatives
Calif., Los Angeles—Gates Rubber Co., 2850 E. 46th St.
Calif., So. San Francisco—Gates Rubber Co., 242 Shaw Rd.
Colo., Denver—Gates Rubber Co., 999 So. Broadway.

GOODALL RUBBER CO., Whitehead Rd., Trenton 4, N. J.

Belting (conveyor, elevator, other).

Calif., Los Angeles—2939 E. 11th St. AN Calif., Los Angeles—2939 E. 11th St. AN 3-6723
Calif., South San Francisco—221 E. Grand Ave. PL 6-5466
Colo., Denver—1033 Santa Fe. KE 4-8258
Ore., Portland—1111 N.W. 16th Ave. CA 7-1259 Utah, Salt Lake City—631 So. Second W. EL 5-7437 Wash., Seattle—1701 Fourth Ave. So. MA 2-8257

GOODRICH, B. F., INDUSTRIAL PRODUCTS CO., 500 So. Main St., Akron, Ohio

Belting (conveyor, composition, elevator, endless),

Calif., Los Angeles—3525 So. Garfield Ave. RA 3-6692 Calif., San Francisco—1950 Army St. AT 2-9620 Colo., Denver-2500 W. Eighth Ave. TA 5-1267

Wash., Seattle—I Hanford St. MU 4307, 4308

Representatives

Ariz., Phoenix—Thunderbird Sales Corp.,
2255 W. McDowell Rd. AL 4-8876
Calif., Bakersfield — Ba-Valley Industrial
Supply Co., 131 First St. FA 7-5321
Calif., Fresno—California Industrial Rubber Co., 2009 So. Van Ness
Calif., Los Angeles—Howard Supply Co.,
5125 So. Santa Fe. KI 1281
Calif., Pomona—Reliable Bearing & Supply Co. of Pomona, 777 W. Second St.
NA 9-5007
Calif., Riverside—Reliable Bearing & Supply Co. of Riverside, 3545 Main St. OV
3-4503
Calif., Sacramento — Sacramento Rubber

ply Co. of Riverside, 5345 Main St. OV 3-4503
Calif., Sacramento — Sacramento Rubber Co., 721 J St. GI 2-3847
Calif., San Bernardino — Reliable Bearing & Supply Co., 263 So. E St. TU 8-6565
Calif., San Francisco—Hercules Equipment & Rubber, 435 Brannan St. YU 6-2770
Calif., Stockton—Delta Rubber & Equipment Co., 530 No. Union St. Phone 7-7813
Colo., Denver—A. J. Philpott Co., 1816 California. AL 5-0550
Ore., Portland—General Rubber & Supply. 101 S. W. First Ave. AT 6565
Ore., Portland—Electric Steel Foundry Co., 2141 N. W. 25th Ave.
Ore., Portland—Howard Cooper Corp., 5821
N. E. Glisan
Wash., Seattle — Nebar Supply Co., 3000
Western. MA 6292

GOULD-NATIONAL BATTERIES, INC., First National Bank Bldg., St. Paul, Minn. **Batteries**

Calif., La Puente—14500 Nelson Ave. ED 6-4571
Calif., Oakland—949 55th St. OL 4-5700
Colo., Denver—2315 15th St. GE 3-2595
Ore., Portland—1973 N.W. Lovejoy St. CA
7-7461

GOULDS PUMPS, INC., 240 Fall St., Seneca Falls, N. Y.

Pumps (liquid handling).

Ariz., Tucson-Central Station Squipment

Ariz., Tucson—Central Station Squipment Co.
Calif., Bakersfield—Kemble & Sons, Inc., 501 34th St. Phone 8-8538
Calif., Los Angeles—Pump Co., 2011 So. Santa Fe Ave.
Calif., San Diego—Standard Iron Supply, Harbor Dr. & Beardsley.
Calif., San Francisco—Woodin & Little, 33 Fremont St.
Colo., Denver—G. M. Wallace Co., Denham Bldg.
Mont., Billings—Midland Implement Co., 2303 Montana Ave. Phone 3155
Ore., Portland—R. M. Wade & Co., 1919
N. W. Thurman St.
Utah, Salt Lake City—G. M. Wallace Co., 1228 Continental Bank Bldg.
Wash., Spokane—General Machinery Co., 3500 Riverside. KE 1535

GRANBERG CORP., 1308 67th St., Oakland 8, Calif.

Pumps (liquid handling).

Branch Office Calif., South Gate—8997 State. LO 7-4880

Representatives
Ore., Portland—Henry Kalz Co., 4023 No. Interstate. AT 7-9700
Wash., Seattle—Nebar Supply Co., Inc., 3000 Western Ave. MA 2-6292

GRAND SPECIALTIES CO., 3101 W. Grand Ave., Chicago 22, III.

Lift trucks (hand, battery and electric), Lift stackers (hand), Elevator (portable and stationary), Dumpers, Cranes (portable).

Representatives
Calif., Belmont—Chas. Sterry, 2045 Monroe.
LY 3-9600
Calif., Los Angeles—Golden Bear Equip.
Co., 2505 So. Garfield Ave. PA 1-7254 and

Calif., Los Angeles—Marshall Tool & Supply, 2850 E. Olympic Blvd. AN 3-6121 Calif., Los Angeles—Marshall Tool & Supply, 2850 E. Olympic Blvd. AN 3-6121 Calif., Los Angeles—Yaeger & Sons, 1512 E. Olympic Blvd. TR 3576 Calif., San Francisco—R. D. Adams Co., 9th and Division Sts. UN 1-0700

GRIFFITH EQUIPMENT CO., INC., 4503 Alger St., Los Angeles 39, Calif. CH 5-5021

Belting (conveyor), Conveyors (apron, automatic, belt, bucket, flight, gravity roller, live roller, portable, screw, skate, slat), Elevators (barrel, package, stacking), Pulleys (conveyor, slat), Racks (storage), Tables (conveying, elevating), Trailers (factory and warehouse). Trucks (packing house).

GRIPHOIST, INC., 424 Bryant St., San Francisco 7, Calif.

Heists (hand, portable), Slings (rope).

Ariz., Phoenix — Arizona Welding Equipment Co., 415 So. Seventh St. AL 8-2853 Ariz., Tucson—Aweco Supply Co., 802 So. Park Ave. MA 4-1781 Calif., Berkeley—J. R. Feeny, 800 Addison. AS 3-3236 Calif., El Monte — W ar n o c k - Bancroft Equipment Co., 9635 Rush St. FO 0-4509, 5070

Solio
Calift., Fresno—Fresno Wire Rope & Rigging Co., 2394 East Ave. AM 6-2034
Calift., Los Angeles—John A. Batchelor, 3037 E. 12th St. AN 2-4125
Calift., Los Angeles—Dickson Safety Products Co., 12921 W. Washington.
Calift., Los Angeles—Fornaciari Co., 5350
E. Washington Blvd. AN 9-7595
Calift., Los Angeles—Cable Distributors, Inc., 4903 E. Washington Blvd. AN 9-3179
Calift., San Francisco—C. H. Bull Co., 115
Tenth St. UN 1-2466
Calift. San Francisco—Lebose Sales. 9 First

Calif., San Francisco—C. H. Buil Co., 113
Tenth St. UN 1-2466
Calif., San Francisco—Lebose Sales, 9 First
St. YU 2-7561
Calif., San Francisco—Welch B. Elliott Co.,
3415 Pierce St. WA 1-3283
Calif., San Francisco—Welch B. Elliott Co.,
11c., 975 Bryant. HE 1-6900
Calif., San Francisco—Weeks-Howe-Emerson, 750 Harrison. SU 1-3662
Calif., San Gabriel—Abernathy & Co., 361
No. Arroyo Dr. AT 4-4838
Calif., South Gate—Cost Reduction Equipment Co., 5200 Chakemco St. LO 7-2487
Calif., Stockton — Stockton Iron Works,
Harrison and Lindsay. HO 6-7091
Colorado Blyd. AT 8-1513.
Hawaii, Honolulu—Theo. H. Davies & Co.,
Ltd., P.O. Box 3020

Idaho, Boise — Intermountain Equipment
Co., Broadway and Myrtle. Phone 3-6441
Idaho, Wallace—Coeur d'Alene Hardware
& Foundry Co., 612-622 Bank St.
N. Mex., Albuquerque — J. E. Green Co.,
P.O. Box 1622. AL 5-7828
Ore., Portland — Masonry Products Co.,
1002 N.E. 128th Ave. AL 4-1972
Ore., Portland—Geo. M. Philpott Co. Oregon, Ltd., 2353 N.W. 21st Ave. CA 8-9327
Ore., Salem—Salem Steel & Supply, 180
Court St. Phone 2-3678
Utah, Salt Lake City—Holland Equipment
Co., 2295 So. Second W. HU 5-5856
Wash., Seattle—Clyde Equipment Co., 3410
First Ave. So.
Wash., Seattle—Industrial Products Co.,
2911 First Ave. So. MA 7488
Wash., Seattle—Rice Sales Co., 256 So. 160.
MM. 2-5533

Mash., Seattle—Rice Salva MA 2-5533 Wash., Tacoma—St. Paul & Tacoma Lum-ber Co., 1220 St. Paul Ave. MA 6181

GUMMED PRODUCTS CO., DIV. of ST. REGIS PAPER CO., 421 So. Union, Troy, Ohio

Tape (marking, packaging).

Representatives
Calif., Los Angeles—Wylie-Davis, 1151 So.
Broadway, Suite A-59.
Calif., San Francisco — Wylie-Davis, 210
California St., Rm. 203.

HAMILTON CASTER & MANUFAC-TURING CO., 1529 Dixie Hwy., Hamilton, Ohio

Industrial casters, wheels and floor trucks.

Representatives
Ariz., Phoenix—Kistler Industrial Service, 902 So. Central Ave.
Calif., Los Angeles—District Steel, Inc., 5249 Sheila St.
Calif., Modesto—Geiger Iron Works, Inc., 124 Willow
Calif., Sacramento—Color.

Calif., Modesto—Geiger Iron Works, Inc., 124 Willow
Calif., Sacramento — Geiger Iron Works, Inc., 2425 24th St.
Calif., Sacramento—Standard Iron Supply, 1821 Harbor Dr.
Calif., Stockton—Geiger Iron Works, Inc., Scotts Ave. and Pilgrim St.
Colo., Denver—Materials Handling Equipment Co., 1795 Sheridan Blvd.
Ore., Bend—Moty & Van Dyke, Inc.
Ore., Klamath Falls—Moty & Van Dyke, Inc.
Utah, Salt Lake City—Foulger Equipment Co., 1361 So. Second W.
Wash., Seattle—Charles Industrial Sales Co., 5201 First St. So.
Wash., Seattle—E. F. Bailey Co., 1000 Fourth Ave. So.

HAMILTON TOOL CO., THE, Ninth and Hanover, Hamilton, Ohio

Jacks (lifts, screw), Platforms (loading), Stackers (portable electric, portable hand), Tables (conveying, elevating, portable, other), Trucks (dolly, die handling, elevating or lifting, hand lift, hand-electric lift, hand-mechanical lift, pallet, sheet handling, skid handling,

Calif., Los Angeles—Tornquist Machinery, 3838 Santa Fe. Lo 8-1601
Calif., San Francisco—B-H-S Machinery, 717 Airport Blvd. PL 3-4466
Colo., Denver-Richard Ives Co., W. Colfax at Welton. AL 5-1411
Wash., Seattle—Hallidie Machinery Co., Inc., 210 Hudson St. LA 9520

HANSON CLUTCH & MACHINERY CO., Miami St., Tiffin, Ohio Cranes (yard, truck, crawler).

Ariz., Phoenix — Arizona Cedar Rapids Co., 1726 W. Jackson St. Phone 3-8205 Calif., Los Angeles—Larson Equipment Co., 3838 Santa Fe Ave. LU 5-1181 Calif., San Diego—Kenton Equipment Co., 1895 Main St. BE 3-8913 Calif., San Francisco—Fred E. Barnett Co., 1455 Custer Ave. MI 3-2970 Colo., Denver—Accessory Supply Co., 2615 Walnut Ave. KE 2033

HARNISCHFEGER CORP., 4400 W. National Ave., Milwaukee 46, Wis. Cranes (charging and drawing, gantry, hand pow-er, jib, pillar, swing, bracket, double beam over-head, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, "1" beam overhead, monorail overhead, yard, truck tractor), Hoists (bucket, chain, electric, hand, monorail, portable, traveling), Scales (crane).

Ariz., Phoenix—39 W. Adams St., AL 4-LO 9-7141 Calif., San Francisco—100 Bush St., DO 2-2313 2313 Colo., Denver—1108 15th St., AL 5-4877 Wash., Seattle—2909 First Ave. So. MA 2-4924

Representatives

(Distributors in all large cities in the West)

HARRINGTON CO., THE, Gravers Rd., Plymouth Meeting, Pa.

Cranes (hand power, overhead hand power, overhead I beam), Hoists (chain, electric, hand, monerail), Trolleys (monorail).

Representatives

Calif., San Gabrie!—Walter W. Abernathy. 361 No. Arroyo Dr. Calif., San Francisco—Paul Watts, Inc., 265 Vermont St. Ore., Portland—John C. Laing, 435 No. Til-

HARTMAN METAL FABRICATORS, INC., PORTABLE LIFT DIV., 133 Murray St., Rochester 6, N.Y.

Elevators (barrel, package, portable tiering), Leeders and unloaders (portable, self propelled), Stackers (portable electric), Trucks (bag, barrel, drum, die handling, dolly, elevating or lifting, factory and warehouse, hand lift, hand electric lift, hydraulic lift, power-driven lift, pallet, paper roll, sheet handling, skid handling, straddle, electric tiering.

Representatives

Representatives

Calif., Los Angeles—Stanley E. Morris Co., 5584 Alhambra Ave.
Calif., San Francisco—Industrial Service Co., 616 McClary Ave.
Colo., Denver—Landes, Zachary & Peterson Co., 601 So. Jason St.
Ore., Portland—Portland Machinery Co., 208-216 S. W. First Ave.
Wash., Seattle—Preston Faller Co., 1921 Minor Ave.

HEIL CO., see ARNOLD DRYER CO.,

HEIN-WARNER CORP., 1200 National Ave., Waukesha, Wis.

Representatives

Calif., North Hollywood—Leonard Lookabaugh, 5215 Corteen Pl.
Calif., San Francisco—Jack Duval Co., 885
Post St.
Colo., Denver—H. C. Babcock Co., 1122 Colo., Denve Twelfth St Ore., Portland—Dirks & Co., 416 N. W. 14th Ave.

HENSEL GREEN & CO., 9 So. Clinton St., Chicago, III.

Tractors (diesel, gasoline warehouse).

Representatives

riz., Phoenix—Kinney Material Handling Equipment, Inc., 929 Grand Ave. AL 8-2778 8-27/8 Calif., Los Angeles—James P. Kinney Co., 3659 Whittier Blvd. AN 9-7411 Calif., San Francisco—Ira G. Perin Co., 575 Howard St. GA 1-1827

HEPPENSTALL CO., 501 16th St., New Brighton, Pa.

Grabs, grapples, tongs.

Representatives Representatives
Calif., Burlingame — Wooldridge Co., 1209
Burlingame Ave. DI 2-0823
Calif., Los Angeles—Wooldridge Co., 6440
Fleet St. RA 3-6575
Colo., Denver—J. M. Moore, No. 2 Santa Fe Dr.
Ore., Portland—Roy Smythe Co., 729 S.W.
Alder St. CA 3-0502 HERCULES MOTORS CORP., Market & 11th St., S.E., Canton 2, Ohio

Gasoline, diesel, butene, LPG and natural gas engines for trucks and carriers, Power units for drives, 3 to 600 hp.

Representatives

Representatives

Ariz., Phoenix—Schuler & James of Arizona, 607 No. 19th Ave.
Calif., Long Beach—Engine & Equipment Co., 2102 E. 28th St.
Calif., Los Angeles—Hercules Engine & Parts Co., 6929 Bandini Blvd.
Calif., San Diego — Westerlund & Lange, 1432 Union St.
Calif., San Francisco—Bay Engine & Parts Co., 540 Treat Ave.
Colo., Denver—Liberty Truck & Parts, 690 Lincoln St.
Idaho, Boise — The Sawtooth Co., 1115

Idaho, Boise - The Sawtooth Co., 1115

Idaho, Boise — The Sawtooth Co., 1115 Grove St. Mont., Billings — Western Construction Equipment Co., 505 N. 24th St. N. Mex., Albuquerque — Pound Brothers, 412 W. Marble. Utah, Salt Lake City — Diamond T Utah, Inc., 1045 S. Main St. Wash., Seattle — 511 Leary Ave.

HERMAN, KARL A. CO., 412 Fuller Ave. N.E., Grand Rapids 3, Mich.

Boxes (steel tote), Dockboards (steel counter-weighted), Ramps (steel leading). Herco-Flex

Representatives

Calif., Oakland—Roll-Rite Corp., 8th and Jefferson. GL 1-5921
Calif., San Francisco—Acme Equipment Co., 840 Harrison St. EX 2-1560
Colo., Denver—Plant Equipment Co., 1400
Market St. AL 5-5411
Wash., Seattle—G. E. Burleigh Co., 5245
Pullman Ave. FI 5245
Wash., Seattle—Mechanical Handling Co., 1401 W. Garfield St. GA 0200

HERTNER ELECTRIC CO., THE, 12690 Elmwood Ave., Cleveland 11, Ohio

Battery chargers (Motor generator type), A-C. and D-C. motors and generators in integral ratings, Magnet generators, High frequency power sup-

Representatives

Representatives

Ariz., Phoenix—Howard Jordan, 1007 Grand
Ave. AL 2-5183

Calif., Los Angeles—John Hyatt Ce., 6059½

E. Olympic Blvd. RA 3-6022

Calif., San Francisco—McCarthy-Hood &
Assoc., 1485 Bayshore Blvd. JU 6-1860

Colo., Denver—Hubert Kaub, 1025 Santa
Fe Dr., MA 3-4606; AL 5-7192

Ore., Portland—Jack A. Ryan, 1224 S.W.

Morrison St. CA 8-8508

Wash., Seattle 4—Stephen Thurlow, 1731

First Ave. So. MU 5488

HEWITT-ROBINS, INC., 666 Glenbrook Road, Stamford, Conn.

Conveyor belting and idlers, Industrial hose, power transmission equipment, Vibrating conveyors, Screens and shakeouts.

Branches

Phoenix-207-B Camelback Rd. CR Ariz... Phoenix—201-26
4-0245
Calif.., Los Angeles—2604 So. Malt Ave.
RA 3-4771
Calif.. San Francisco—55 New Montgomery
St. EX 2-4060
Colo., Denver—5075 Colorado Blvd. AC 2-Colo., Denver—660 Bannock St. AC 2-8484 Ore., Portland—714 N.E. First Ave. BE 4-9658 Utah, Salt Lake City-458 So. Third St. E. DA 2-1144 Wash., Seattle — 641 Dexter Horton Bldg. MA 2-8640

"HH" MFG., 2224 Cerritos Ave., Long Beach 6, Calif.

Yard Cranes, Hoists (crane, gasoline, hydraulic, portable), Loaders (portable, self-propelled, scoops), Gasoline warehouse tractors, Trailers (fectory and warehouse), Trucks (hag, barrel, drum, gasoline fork, hand, gasoline lift, beggage, other).

Representatives

Ore., Portland — Air-Mac, Inc., 1111 S. E. Grand Ave. BE 4-6524 Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. So. MU 3388

HOLLAENDER MFG. CO., 3841 Spring Grove Ave., Cincinnati 23, Ohio

Nu-Rail and Speed-Rail structural slip-on fittings for use with pipe and tubing for the construc-tion of guard railings, storage racks, etc.

Representatives

Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza St. Calif., Los Angeles—Pacific Metals Co., Ltd., 1400 So. Alameda St. Calif., San Francisco—Pacific Metals Co., Ltd., 3100 19th St. EN 1-0806

See advertisement on page 70

Colo., Denver—Metal Goods Corp., 4343 Holly St. DU 8-4141 Ore., Portland—Pacific Metals Co., 303 N. W. Park Ave. CA 7-0593 Utah, Salt Lake City—Pacific Metals Co., 261 W. Fifth South St. Wash., Seattle—Pacific Metals Co., 4150 First Ave. So. Wash., Spokane—Pacific Metals Co., No. Lee and E. Sprague

HOLLYWOOD PLASTICS, INC., 4560 Worth St., Los Angeles 63, Calif.

Material handling boxes, Tote boxes in 90 stock sizes, Custom parts of thermoolastic for aircraft, electronics, and missile industries.

Ariz., Phoenix—Kinnev Material Handling Equipment Inc., 929 Grand Ave. AL 8-2778 8-2778
Calif., San Diego—Winn Supply Co., 1676
Main St. BE 3-3106
Calif., San Francisco—Hamerslag Equioment Co., 110 Freeway Blvd. JU 6-1789
Colo., Denver—Materials Handling Equipment, 1795 Sheridan Blvd. BF, 7-0433
Ore., Portland—Gilmer Bldg, Snecialties, 0511 S. W. Carolina St. CA 8-4922
Wash., Seattle—Timmerman Equipment, 1310-12 Western Ave. MU 2767

HOLZ RUBBER CO., INC., 1129 So. Sacramento St., Lodi, Calif.

Conveyor Belting Attachments, Vulco-Lagged Pullevs, Cleated Belts, Rubber Rollers, Pivot-Flite Cleats and Load Grios, Solid Tires, Chute Lining, Molded Rubber Specialties.

Representatives

Representatives
Calif., Los Angeles—Degen-Fiege Co., 4559
E. Shelia. AN 9-0781
Calif., Los Angeles—Western Belting & Mechanicals Inc. 3525 Emery. AN 1-7117
Idaho, Pocatello—Paul Roberts Supply
Ore., Portland—General Rubber & Supply, 2759 N. W. Raleigh. CA 8-6565
Wash., Spokane—Modern Machinery Co., Inc., E. 4412 Trent Ave.
Wyo., Cheyenne—Keremi Tractor & Equipment Co., P.O. Box 908

HOMER MFG. DIV., THE, OHIO ELECTRIC MFG CO., 142 E. Pearl St.,

Lima, Ohio

Magnetic convevors, Magnetic sweepers, Magnetic sheet separators, Magnetic plates, Pelleys, Drums and Grates.

Representatives

Representatives

Calif., Los Angeles—Sales Engineering
Service, 667 Gibbons St.

Calif., Oakland—Modern Equipment Co.,
600 16th St. GL 1-6590

Colo., Denver—C. P. Elliott, 661 Delaware
Ave. AL 5-7988

Ore., Portland—Larson & Baardson, Inc.,
708 N. E. Second Ave. BE 2-2197

Wash., Federal Way—Larson & Baardson,
Inc., 31215 Pacific Hwy. So. TA 4-1240

HORNE, E. C., MACHINERY CO., 1726 Champa St., Denver 2, Colo.

Flexible, spring-wire, portable convevor for hand-ling bags, loading frieght cars and trucks; Bag flattening and elevating conveyor.

Representatives

Calif., San Francisco 310 Sacramento Colo., Denver—Clute Corp., 227 Guaranty

HOUGH, FRANK G., CO., THE, 889 Sunnyside Ave., Libertyville, Ill. Payloader tractor-shovel, Paymover towing tractor, Paylogger.

Branch Offices

Calif., Hillsborough—Bonald O. Ross, 1485
Lake View Dr. DI 4-6143
Calif., Inglewood — Merle M. Fate, 10509
Third Ave. PL 4-3690
Colo., Denver—Irving Jacobsen, 1200 Pearl
St. TA 5-1088

Ariz., Phoenix—Copper State Tractor Co... 407 So. 17th Ave. Ariz., Tucson—F. Ronstadt Hardware Co., P. O. Box 5138 P. O. Box 5138
Calif., Bakersfield—Brown-Bevis Industrial Equipment Co., P.O. Box 811
Calif., Eureka—Howard-Cooper Corp. of Calif., Highway 101, No.
Calif., Five Points—Allied Equipment Co., Calif., Highway 101, No.
Calif., Five Points—Allied Equipment Co., Lassen Ave.
Calif., Fresno—Allied Equipment Co., P.O.
Box 871
Calif., Los Angeles—Brown-Bevis Industrial Equipment Co., P.O. Box 2276
Calif., Madera — Allied Equipment Co.,
Highway 99.
Calif., Oakland—Bay Cities Equipment Co.,
2792 Cypress St.
Calif., Reediey — Allied Equipment Co.,
1230 G St.
Calif., Reediey — Allied Equipment Co.,
1230 G St.
Calif., P.O. Box 673
Calif., P.O. Box 673
Calif., P.O. Box 573
Calif., Sacramento—Sacramento Valley
Tractor Co., P.O. Box 1522
Calif., San Diego—Southern Equipment &
Supply Co., P.O. Box 550
Calif., San Diego—Southern Equipment
Co., Inc., 1178 W. San Carlos
Calif., Santa Maria — Hanson Equipment
Co., P.O. Box 870
Calif., Santa Maria — Hanson Equipment
Co., P.O. Box 870
Calif., Stockton — Delta Tractor Co., P.O.
Box 839
Calif., Stratford — Orton Equipment Co.,
Main St.

Box 839
Calif., Stratford — Orton Equipment Co., Main St.
Calif., Tranquility—Allied Equipment Co., McKaney St.
Calif., Tranquility—Allied Equipment Co., McKaney St.
Calif., Ventura — Brown-Bevis Industrial Equipment Co., 273 Day Rd.
Colo., Denver — H. W. Moore Equipment Co., P.O. Box 2491
Colo., Durango—H. W. Moore Equipment Co., Po. Box 2491
Colo., Grand Junction — H. W. Moore Equipment Co., 2335 Grand Junction Idaho, Boise—Intermountain Equipment Co., P.O. Box 1254
Mont., Billings—Industrial Equipment Co., P.O. Box 1284
Mont., Milings—Industrial Equipment Co., P.O. Box 1386.
Mont., Kalispell—Treasure State Equipment Co., 400 Knowles Ave.
Nev., Las Vegas — Clark Co. Wholesale Mercantile Co., 512 So. Main St.
New, Reno—Sanford Tractor & Equipment Co., No. Valley Rd.
N. Mex., Albuquerque—J. D. Coggins Co., P. O. Box 135
Ore., Central Point—Howard-Cooper Corp., P.O. Box 687
Ore., Cequille—Howard-Cooper Corp., P.O. Box 687
Ore., Coquille—Howard-Cooper Corp., P.O. Box 176.
Ore., Eugene—Howard-Cooper Corp., P.O. Box 1.00. Stratford - Orton Equipment Co.,

Ore., Coqu. O. Box 1. Euger O. Box 1.
Ore., Eugene—Howard-Cooper Corp., P.O. Box 3067
Ore., Hermiston—Pendleton Grain Growers, Inc.
Ore., Pendleton—Pendleton Grain Growers Inc., P.O. Box 279
Ore., Portland—Howard-Cooper Corp., P.O. Box 3704
Ore., Roseburg—Howard-Cooper Corp., P.O. Box 390.
Utah, Salt Lake City—Lang Construction Equipment Co., 279 W. First St.
Wash., Seattle—The Carrington Co., 91 Columbia St.

HOUGHTON, E. F., & CO., 303 W.

Lehigh Ave., Philadelphia, Pa. Belting (leather), Packings Rust preventives.

Calif., Los Angeles—2445 E. 26th St. CA 1-6174 Calif., San Francisco—1500 Davidson Ave. VA 4-3207

Ore., Portland-208 S.W. Stark St. CA 8-9211 Wash., Seattle-90 Dearborn St. MA 7961

HOWARD, C. E., CORP., 9001 Rayo Ave., South Gate, Calif. LO 4-1811 Stainless steel truck and semi trailers for hauling liquids.

Calif., Oakland — 449 Rich St. OL 8-5423

Representatives
Calif., Fresno—Utility Trailer Sales Co., 2660 Railroad St. AD 7-2131
Ore., Portland—Monroe Food Machinery, Inc., 1600 S. W. Harbor Dr. CA 6-3741
Wash., Seattle—Monroe Food Machinery, Co., 1226 Ist Ave. So. MA 4-5770
Wash., Spokane—Monroe Food Machinery, Co., 715 No. Madelia St. KE 4-9369

HOWE SCALE CO., Strongs Ave., Rut-

Scales (automatic, counting, monorail, packaging, portable, warehouse, other).

Calif., Los Angeles—2616 Malt Ave. RA 3-4876 4876 Calif., San Francisco—780 Tennessee St. VA 4-4400 Colo., Denver—3841 Mariposa St. GE 3-Wash., Seattle - 3222 Western Ave. AT 4-

HUGHES-KEENAN DIV., UNITED STATES AIR CONDITIONING CORP.,

London Rd., Delaware, Ohio Cranes (yard, truck, tractor).

Representatives
Calif., Los Angeles—Casey-Metcalf Machinery Co., 5515 E. Slauson Ave.
Calif., Los Angeles—Sames P. Kinney Co., 5141 Telegraph Rd.
Calif., San Francisco—Caesar Baldassari, 547 Howard St.
Utah, Salt Lake City—Foulger Equipment Co., 1361 So. Second West St.
Wash., Seattle—Preston Faller Co., 1921 Minor Ave. MA 4256

HUMPHREY ELEVATOR CO., P. O. Box 348, Faribault, Minn. Employee belt manlift elevator

Calif., Oakland—E. C. Buehrer Assoc., Inc., 253 Fourth St. TE 6-2082
Ore., Portland — Larson & Baardson, Inc., 708 N. E. Second Ave. BE 2-2197
Wash., Seattle—James Brinkley Co., 417
Ninth Ave. So. MU 2-4051

HUNTER WOODWORKS, 1235 E. 223rd St., Torrance, Calif.

Boxes for Shipping, Tote Boxes, Pallets, Cut Lumber, Wood Stacking material, Wooden Shipping Crates.

HURT CONVEYOR CO., 1220 Mateo St., Los Angeles 21, Calif. TR 6408 Belting (chain link, composition, conveyor, fabric, canvas, elevator, endlass, wire, other), Belt fasteners, Belt lacings, Conveyors (apron, automatic, bag and bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, overhead, pallet, portable, screw, skate, slat, trolley, other), Elevators (barrel, package, belt, bucket, continuous flow), Conveyor pulleys, Conveyor rollers, Tables (conveyor), elevating, portable, other), Wheels (conveyor).

HYSTER CO., 2902 N. E. Clackamas St., Portland 8, Ore.

Cranes (yard, truck, tractor), Grabs, Truck (bag, barrel, drum, box type, die handling, elevating or lifting, factory and warehouse, diesel fork, gasoline fork, gasoline lift, packing house, pallet, paper roll, sheet handling, skid handling and straddle), Winches and Windlasses.

Branches
Calif., Eureka—1303 Albee St.
Calif., Los Angeles—2425 So. Garfield Ave.
Calif., Sacramento—2340 Auburn Blvd.

See advertisement on page 63

Calif., San Diego—1169 16th St.
Calif., San Francisco—4445 Third St.
Idaho, Boise—612 Main St.
Ore., Medford—654 Grape St.
Ore., Portland—5251 S.E. McLoughlin Blvd.
Wash., Seattle—753 Ninth Ave. No.
Wash., Spokane—No. 1107 Freya St.

Representatives

Ariz., Phoenix—Equipment Sales Co., 720
So. 19th Ave.
Colo., Denver — King & East Machinery
Co., 2050 Bryant St.
Hawaii, Honolulu — Electric Steel Foundry
Co., 630 Queen St.
Idaho, Idaho Falls—Arnold Machinery Co.,
Inc., 1265 W. Broadway.
N. Mex., Albuquerque — Equipment Sales
Co., 4121 Edith, N.E.
Utah, Salt Lake City—Arnold Machinery,
433 W. Second So.

IDEAL STENCIL MACHINE CO., 102 Iowa Ave., Belleville, III.

Stencil machines, Tape dispensing machines (man-ual, electric), Fountain brushes, Felt tip markers, Stencil inks, Stencil board, Other shipping room

Representatives

Representatives

Calif., Los Angeles—Cal-State Distributors, Inc., 8928 So. Figueroa St. PL 2-7141

Calif., Oakland—E. C. Buehrer Assoc., Inc., 253 Fourth St. TE 6-2082

Calif., San Francisco—H. M. Nutter Co., 467 Pine St. DO 2-5018

Colo., Denver — Martin Shippers Supply, Inc., 4424 Vine St. TA 5-2375

Ore., Portland—F. E. Bennett Co., 426 N.W. Sixth St. CA 8-2321

Wash., No. Seattle—Masterson's Equipment Supplies, Inc., 2720 Westlake, GA 0245

Wash., Seattle—Puget Sound Stamp Works, 120 Marion St.

INDUSTRIAL CRANE & HOIST CORP., 1541 S. Paulina St., Chicago 8, III. Overhead crane & monorail systems

Representatives

Calif., Richmond—Schultz Material Handling, 340 11th St. BE 3-7907. For other representatives throughout the West, please consult phone directory.

INDUSTRIAL MARKING EQUIPMENT CO., 655 Berriman St., Brooklyn 8,

Bags (multi-wall printers), Shipping boxes (printers and numberers), Coneyors (markers), Marking equipment (automatic).

Calif., Los Angeles—Productive Equip. Co., 1749 E. Florence Ave.
Calif., Oakland—James Q. Leavitt Co., 410
25th St. TW 3-9964
Colo., Denver—Edwin F. Deline, 224 W. Alameda Ave. Alameda Ave.
Ore., Salem—James Q. Leavitt Co., P. O.
Box 67. Phone 2-0970
Utah, Ogden—James Q. Leavitt Co., P. O.
Box 364. Phone 3-8551
Wash., Seattle—James Q. Leavitt Co., 2702
First Ave. So. MA 3654

INDUSTRIAL SKID & PALLET CO., 3401 E. 15th St., Los Angeles 23, Calif. AN 1-0259

Boxes (tote), Pallets, Platforms (skid), Racks (pallet, storage, other), Trucks (dolly, factory and ware-house, skid handling).

Representatives
Calif., Los Angeles—W. T. Billard, Inc., 734
E. Third St. MI 2659
Calif., Los Angeles—M. E. Canfield Co., 419
E. Third St. MA 6-6606
Calif., Los Angeles—Colson Equipment Co., 1317 Willow St. TR 5744
Calif., San Francisco—Ira G. Perin Co., 545
Howard St. GA 1-1827
Calif., San Francisco—Hamerslag Equipment Co., 45 Elmira St. JU 7-1357
Wash., Seattle—Secord Sales Co., 95 Connecticut St.

INDUSTRIAL WIRE PRODUCTS CORP., 5649 Alhambra Ave., Los Angeles 32, Calif.

Wire, wire products; Stainless steel wire cloth; Wire cloth.

Representatives

Calif., San Francisco — Westates Products, 99 Mississippi St. KL 2-3915

INGERSOLL KALAMAZOO DIV.,-BORG WARNER CORP., 1810 N. Pitcher St., Kalamazoo, Mich.

Load Lugger and Haul Truck Mounted Hoists. Detachable Containers. Roto Hoppers.

Representative

Representative
Ariz., Phoenix — Western Truck Equipment Co., 3101 W. 29th Ave. AL 8-7184
Calif., Los Angeles — Equipment Engineering Service, 672 So. LaFayette Park Pl.
DU 7-8521
Colo., Denver — H. M. Rattle Co., 1391 S.
Cherokee. SP 7-9066
Wash., Seattle — Lo Lug Northwest, 500
Wall St. MU 2-4566

INGERSOLL-RAND CO., 11 Broadway, New York 4, N.Y.

Hoists (air, chain, drum, electric and portable), Pumps (liquid handling).

Calif., Los Angeles—5533 E. Olympic Blvd. RA 3-0131 Calif., San Francisco—350 Brannan St. GA 1-6330 Colo., Denver—1641 Blake St. KE 4-2245 Mont., Butte—845 So. Montana St. Phone 2-0451 Ore., Portland—Room 1004, Broadway Bldg., Broadway and Morrison St. CA 6-6138 6-6138 Utah, Salt Lake City—144 S. W. Temple St. DA 8-8127 Wash., Seattle—526 First Ave., So. MA 2866

INSLEY MFG. CORP., 801 No. Olney Ave., Indianapolis, Ind.

Self-propelled, Rubber-tired cranes.

Calif., Los Angeles—P.O. Box 3129, Terminal.

Calif., Log Angeles—P.O. Box 3129, Terminal.

Representatives
Ariz.. Phoenix — Shriver Machinery Co., 1756 Grand Ave.
Calif., Eureka—Trinity Tractor Co., 3408
Jacobs Ave.
Calif., Fresno—Contractors Equip. & Supply Co., 1143 C St.
Calif., Ios Angeles—Essick Machinery Co., 1950 Santa Fe Ave.
Calif., Redding—Sullivan & Crowe Equipment Co., 2637 Angelo St.
Calif., Sacramento—Western Traction Co., 16th & American River.
Calif., San Francisco—Western Traction Co., 16th Sernoid Ave.
Calif., Santa Ana—Essick Machinery Co., 12202 Westminster Ave.
Colo., Denver—Macdonald Equipment Co., 5300 Colorado Blvd.
Colo., Grand Junction—S & M Supply Co., Inc., 735 Fourth Ave.
Mont., Helena—Caird Engineering Works, P. O. Box 837.
N. Mex., Albuquerque—Construction Machinery Co., 1780 Menaul N. W.
Ore., Portland—Wood Tractor Co., 5341
N. E. 82nd Ave. Ore., Portland—Wood Machinery N. E. 82nd Ave.
Utah, Salt Lake City—Lund Machinery Co., 2350 S. W. Temple.
Wash., Seattle—Washington Machinery Co., 7329 E. Marginal Way.

INSUL-8-CORP., 1369 Industrial Rd., San Carlos, Calif.

Safety electrification for industrial cranes and monorails.

Calif., Berkeley—Fletcher Sales Co., 2216
Fifth St. TH 5-1863
Calif., Pasadena—C. H. Currier Co., 2368 E.
Football Blvd. RY 1-6896
Ore., Portland—J. A. Tudor & Assoc., 1004
S. E. Belmont St. BE 2-1188
Wash., Seattle—Industrial Products, 2911
First Ave. So. MA 2-7488

INTERNATIONAL CONVEYOR & WASHER CORP., 652 E. Fort St., Detroit 26, Mich. Conveyors.

Branch Calif., Gardena—19522 Moneta. FA 1-0234 Ill., Chicago — 2644 N. Western Ave. CA 7-7622

JABSCO PUMP CO., 1485 Dale Way, Costa Mesa, Calif.

Pumps (rotary type self-priming), Pump and clutch units.

Representatives

Colo., Denver—R. J. Donnelly Co., 3031
E. 42nd Ave. FL 5-9883
Utah, Salt Lake City—Don D. Gamble Co., 1908 Bryan. HU 5-9928
Wash., Bellevue—J. F. Boyce, Inc., 441
140th Ave. N.E. GL 4-4374

JACKSON, BYRON, PUMPS, INC., Subsidiary of Borg-Warner Corp., P. O. Box 2017, Terminal Annex, Los Angeles 54, Calif.

Camplete line of centrifugal pumps.

Branches

Ariz., Casa Grande — 40 No. Brown Ave.
TE 6-7430, -74-39
Ariz., Phoenix — 4146 E. Washington. BR
5-5729
Calif., Chico—844 Broadway. FI 2-3551
Calif., Fresno—Olney & Front Sts., Malaga.
AM 4-5938
Calif., Huntington Park—2157 Laura Ave.
LU 3-4873
Calif., Los Angeles—2300 E. Vernon Ave.
LU 7-6171
Calif., Sacramento—719 K St. GI 3-1819
Calif., Sar Francisco — 369 Pine St. SU
1-5812
L-5812
L-5 1-5812 Calif., Santa Clara—c/o C & N Pump Well Co., 1901 Washington St. CH 3-2220 Idaho, Twin Falls—P. O. Box 584. RE 3-2386 Wash., Seattle—302 Lloyd Bidg. MU 2-7173

JACKSON MFG. CO., P. O. Box 9, Harrisburg, Pa.

Carts (hand, push), Wheelbarrows (Industrial), Wheels (general industrial, rubber tired).

Representatives
Calif., Los Angeles—Lippincott Co., 1052 W. Sixth St.
Calif., San Francisco—Lippincott Co., 995
Market St.
Utah, Salt Lake City—Lippincott Co., 109
W. Second St. So.
Wash., Seattle—Lippincott Co., 911 Western Ave.

JAKES FOUNDRY CO., 2800 Charlotte Ave., Nashville 9, Tenn.

Standard and special designed factory and ware-house trucks and trailers, wheels, casters and drag-line trucks.

Representatives

Representatives

Calif., El Centro—Imperial Hardware Co., 525 Main St. EL 2-3021

Calif., Los Angeles—Colson Equipment & Supply Co., 1317 Willow St. MA 2-2422

Calif., San Francisco—Elder & Co., 333 Seventh St. UN 1-5480

Colo., Denver—Plant Equipment Co., 1400

Market St. AL 5-5413

N. Mex., Albuquerque—Roadrunner Equipment Co., 143 Coors Blvd. S.W. CH 2-8425

Cre., Portland—R. H. Brown Co., Inc., 2949

N. W. St. Helens Rd. CA 3-4196

Utah, Salt Lake City—R. B. Rees & Co., 2906 Delsa Dr. CR 7-3529

Wash., Seattle—R. H. Brown Co., 502 First Ave. So. SE 0707

JANETTE ELECTRIC MFG. CO., Lehigh at Main, Morton Grove, Ill. Gearmotors, Speed reducers, A-c. and d-c. variable speed drives.

Branches

Calif., Los Angeles — 8255 Beverly Blvd. WE 3-7591 Calif., San Francisco—36 Second St. EX 7-6995 Colo., Denver—Box 614. KE 4-0035 Ore., Portland—103 S. W. Front Ave. CA 8-4311 Wash., Seattle-1016 First Ave. MA 3-4949

JARKE MFG. CO., 6333 W. Howard St., Chicago 48, Ill.

Portable bar racks, Wire coil racks, Portable feed tables for stamping presses, Custom made stock storage equipment.

Representatives
Calif., Emeryville—Joseph T. Ryerson & Son, Inc., 65th and Hollis Sts.

Calif., Los Angeles—H. N. Bailey Industrial Supply Co., P.O. Box 74335, Oakwood Sta.
Calif., Los Angeles—Golden Bear Equipment Corp., 2505 So. Garfield Ave.
Calif., Los Angeles—M & S Sales Co., P.O. Box 17331, Foy Sta.
Calif., Los Angeles—Joseph T. Ryerson & Son, Inc., 4310 Bandini Blvd.
Calif., Sacramento—Paul W. Roeder Co., P.O. Box 1552.
Calif., South San Francisco—Hamerslag Equipment Co., 110 Freeway Blvd.
Colo., Denver—Patrick F. Colburn, 5560 E. 33rd Ave.
Colo., Denver—Plant Equipment Co., 1400 Market St.

Colo., Denver-J. D. Whiting, 4135 Quitman St.
Colo., Thornton—Equipment Engineering, 1400 Ruth Dr.

1400 Rith Dr.
Mont., Billings — Winter Hardware Co.,
4102 First Ave. So.
Wash., Seattle—F. T. Crowe & Co., Inc.,
329 Second Ave. W.
Wash., Seattle—Joseph T. Ryerson & Son.
Inc., 1200 Fourth Ave. So.
Wash., Spokane—Joseph T. Ryerson &
Son. Inc., N. 207 Freya St.

JARVIS & JARVIS, INC., So. Main St., Palmer, Mass.

Casters, Trucks (dolly, hand), Tote boxes, Wheels (rubber tired).

Representatives

Calif., Los Angeles—Utilities Supply Co., 2852 Supply Ave. RA 3-9111
Calif., Oakland—Roll Rite Corp., 801 Jefferson St. GL 1-5921
Colo., Denver—Materials Handling Equipment Co., 1795 Sheridan Blvd. BE 7-0433
Ore., Portland—Oregon Handling Equipment Co., 2949 N. W. St. Helens Rd. CA 8-4196
Wash., Seattle—Cascade Handling Equipment Co., 410 Battery St. MA 7069

THE JEFFREY MFG. CO., 920 N. 4th

St., Columbus 16, Ohio Conveyors, Feeders, Crushers, Chains and Transmission machinery.

Calif., Burlingame — 1862 Rollins Rd. OX 7-5303 Colo., Denver—1726 Champa St. TA 5-3553 Utah, Salt Lake City—15-N West Temple. EM 4-8848

Ariz... Phoenix—The Maltby Co., 424 West Jefferson Ariz... Phoenix — Cactus Bearings and Chains, Inc., 424 W. Jefferson Ariz... Scottsdale—General Conveyor, Inc., 478 N. Scottsdale—General Transmission Products, Inc., 2930 Broadway Calif., Los Angeles — Amercon Corp., 900 Alvarado Representatives
Phoenix—The Maltby Co., 424 West

Alvarado
Calif., Los Angeles—The Maltby Co., 1940
South Figueroa St.

See advertisement on page 65

Calif., Maywood --- Bearings, Belts and Chains, Inc., 4035 E. 52nd St. Calif., Sacramento—Sacramento Engineer-ing and Machine Works, Sixth and "X"

ing and Machine Works, State and Sts.

Calif., San Diego — Aztec Bearing and Chains, Inc., 745 - 15th St.

Calif., San Francisco — General Conveyor, Inc., 870 Market St.

Calif., San Francisco—Bearing Engineering Co., 1547 Mission St.

Calif., South San Francisco — Adam-Hill Co., Utah Ave. and Corey Way

Calif., Stockton—The Bearing Supply Co., 300 N. Wilson Way

Calif., Watsonville—Goodale Mfg. Co., 38 Menker St.

Calif. Southgate—Power Transmission

Calit., Stockton—I're Bearing Supply Co., 300 N. Wilson Way Calif., Watsonville—Goodale Mfg. Co., 38 Menker St.
Calif., Southgate—Power Transmission Equipment Co., 4501 Firestone Blvd.
Colo., Denver—E. C. Horne Machinery Co., 1726 Champa St.
Montana, Billings—Power Transmission Equipment, P. O. Box 988
Ore., Portland — Northwest Chains & Sprockets, Inc., 31 N. W. First Ave.
Utah, Salt Lake City—Bearing Service & Supply Co., 1207 South Main St.
Utah, Salt Lake City—General Conveyor, Inc., of Utah, 15 N. W. Temple St.
Wash., Seattle — Northwest Chains & Sprockets, Inc., 3628 East Marginal Way

JOHNSON & FLAHERTY MFG. CO. 5801 District Blvd., Los Angeles Racks (pallet, storage, other).

Calif., San Francisco—Squires Co., 370
Fourth St. YU 6-4882
Wash., Seattle—Air-Mac Inc., 3838 Fourth
Ave., So.

JOY MFG. CO., Henry W. Oliver Bldg., Pittsburgh 22, Pa.

Complete line of belt conveyor equipment: idlers, drives, pulleys, take-ups, pre-fabricated truss sections, rope belt conveyors, controls and accessories, Hoists and car pullers, pneumatic grapples.

Calif., Los Angeles—5426 E. Washington Blvd. RA 3-6305 Calif., San Francisco—1155 Harrison St. HE 1-2446 Colo., Denver—1626 Wazee St. KE 4-6334 N. Mex., Carlsbad—507 Park Dr. TU 5-4175 Ore., Portland—1631 N.W. Thurman St. CA 7-5561 Utah, Salt Lake City—998 So. Sixth W. St. DA 2-0481 Wash., Seattle-2411 Western Ave. MU 2266

Representatives
Calif., El Monte—Warnock Bancroft Equipment Co., 9635 Rush St.
Calif., Sacramento — Sacramento Rubber
Co., 721-23 J St.
Calif., San Diego—Standard Iron & Supply, 1821 Harbor Dr.
Calif., San Francisco—Western Machinery
Co., 630 Fifth St.
Calif., Santa Clara—C. F. Smith Equip. & Service Co., 858 Scott St.
Calif., Stockton — Stockton Iron Works.
Harrison & Lindsay Sts.
Colo., Denver—Western Belting Co.
Mont., Butte—Hall Perry Machinery Co.
P. O. Box 1367
N. Mex., Albuquerque — Harry Cornelius
Co. Co Co.
Ore., Portland—Clyde Equipment Co., 1631
N. W. Thurman St.
Ore., Portland — J. W. Minder Chain & Gear Co., 307 S. E. Hawthorne Blvd.
Utah, Salt Lake City—Foulger Equipment Co., Inc., 1361 So. Second W.
Wash., Spokane—American Machine Co., W. 1026 Broadway Ave.

KAAR ENGINEERING CORP., 2995 Middlefield Rd., Palo Alto, Calif. Two-way mobile radios

Representatives

Calif., San Francisco—Arthur & Allen, 420
Market St.
Calif., Woodland Hills — King-Moon Co.
P. O. Box 433. DI 7-6216
Colo., Colorado Springs — Peyser & Co.
1501 No. Weber St. ME 4-3401
Ore., Portland—Donal Co., P. O. Box 7013
CH 6-3131
Wash., Seattle — Corden Wash., Seattle — Gordon Armstrong, 226 29th Ave. No. EA 6189

KALAMAZOO MFG. CO., 1827 Reed St., Kalamazoo 24F, Mich.

Tractors (warehouse electric, gasoline warehouse). Trucks (bag, barrel, drum, industrial).

Representatives

Calif., Los Angeles—James E. Simkins, 1748 W. 54th St. AX 1-2022 Colo., Denver—Kelley-Fox Co., 128 W Fifth Ave. RA 2-7896 Utah, Salt Lake City—P & B Assoc., 3351 Elgip D. Elgin Dr. ash., Seattle—Air-Mac, Inc., of Washington, 3838 Fourth Ave., So. MU 3388

KAY - BRUNNER STEEL PRODUCTS, INC., 999 Meridian Ave., Alhambra, Calif. AT 2-2194 and CU 3-2141

Heavy-duty trailer axles, Steel castings (carbon, low alloy, stainless).

KELLEY CO., INC., 2129 W. Mill Rd., Milwaukee 9, Wis. Hi-Lo adjustable dockboards.

Representatives

Ariz., Phoenix—Kinney Materials Handling Equipment, Inc., 929 Grand Ave. AL 8-2778

Calif., Los Angeles — McKinley Equip. Corp., 1557 Esperanza St. AN 9-0567 Calif., Redwood City—Howard Burt & Son, 501 Standish St. EM 8-2806 Colo., Thornton — Equip. Eng. Co., 1400 Ruth Dr. AT 7-5255 Idaho, Boise—Arnold Machinery Co., Inc., 5024 Gage St. Phone 2-1174 Ore., Portland — Charles H. Day Co., 225 S. W. First Ave. CA 2-3187 Utah, Salt Lake City — Arnold Machinery Co., Inc., 433 W. Second So. DA 2-5631 Wash., Seattle—Liftruck & Equipment Co., 558 First So. MU 6336

KELSEY HAYES CO., see FRENCH & HECHT DIV.

KENDALL CO. see POLYKEN SALES

KIMBERLY-CLARK CORP., No. Lake St., Neenah, Wis. Kimpak interior packaging.

Calif., Palo Alto-701 Welch Rd. DA 6-8080

KINNEY MANUFACTURING DIV., THE NEW YORK AIR BRAKE CO., 3529 Washington St., Boston 30,

Rotary liquid handling pumps, vacuum pumps, vacuum equipment.

Calif., Los Angeles—5058 Venice Blvd. WE 8-7292

See advertisement on page 26

Calif., San Francisco-King-Knight Co., 360 Jefferson St. PR 6-2700 Wash., Seattle—R. L. Dyer, 903 Northern Life Bldg. MA 3443

K W BATTERY CO., 3555 Howard St., Skokie, III.

Industrial batteries for walkie and rider-type

Calif., Los Angeles—Trojan Battery Co., 724 E. 61st St. AD 3-4286
Calif., San Francisco—Scott-Meehan Co., 439 Bryant St. DO 2-3428
Colo., Denver—Westric Battery Co., 4201
Galapago St. GE 3-6322

KNICKERBOCKER CO., 603 Liberty St., Jackson, Mich.

Trucks (gasoline fork, hydraulic lift, pallet, skid handling).

Representatives
Wash., Vancouver — Columbia Machine,
Inc., 106 So. Grand Ave.

KOEHRING DIV., KOEHRING CO., 3026 W. Concordia Ave., Milwaukee 16, Wis.

Cranes, Trucks.

Calif., Stockton—2200 Country Club Blvd.

Calif., Stockton—2200 Country Club Blvd.

Representatives

Ariz., Phoenix — Neil B. McGinnis Equipment Co., 500 So. Central Ave. AL 5-5391
Calif., Norwalk — Harron, Rickard & McCone Co., 13770 E. Firestone Blvd.
Calif., San Francisco—Geo. M. Philpott Co., Inc., 1060 Bryant St.
Calif., Stockton — Action Equipment Co., 4000 No. Wilson Way
Idaho, Boise—Engineering Sales & Service, 410 Capitol Blvd.

Mont., Billings — Western Construction Equipment Co., 505 No. 24th St.
Mont., Great Falls—Western Construction Equip. Co., 2322 River Dr.
N. Mex., Albuquerque — Harry Cornelius Co., 1510 Second St., N. W.
N. Mex., Farmington — Crutcher-Rolfs-Cummings, Inc., P. O. Box 1207
Ore., Portland—Columbia Equipment Co., 1240 S. E. 12th Ave.

Utah, Salt Lake City—Kimball Equipment Co., 1846 So. Second W. Wash., Seattle—Pacific Hoist & Derrick, 3200 Fourth Ave. So.

Wash., Spokane—American Machine Co., 1026 W. Broadway

KOEHRING CO., see also KWIK-MIX CO., A DIV.

KOLMAN MANUFACTURING CO., 3830 W. 12th St., Sioux Falls, S.

Conveyors (portable and stationary), vibrating screens, portable conveyor-screen plants, conveyor-loaders, radial stackers, road wideners and portable cranes.

Branch Office

Calif., San Francisco 22—S. A. Madrid, 2910 Lawton St. OV 1-8346

Calif., San Francisco 22—S. A. Madrid, 2910
Lawton St. OV 1-8346

Representatives
Calif., Los Angeles — Brown-Bevis Industrial Equipment Co., 6550 E. Washington St. PA 3-7161
Calif., Oakland 20 — Spears-Wells Machinery Co., 1832 W. Ninth St. GL 1-3432
Colo., Denver — Faris-Moritz Equipment Co., 5790 Colorado Blvd. AT 3-2684
Idaho, Boise — Intermountain Equip. Co., P. O. Box 1129. Phone 3-6441
Mont., Butte — Hall-Perry Machinery Co., 812 E. Iron St. Phone 2-2323
N. Mex., Albuquerque—Construction Machinery Co., 2601 2nd N. W. Phone 4-1633
Ore., Portland—Balzer Machinery Co., 2136
S. E. 8th St. BE 2-2141
Utah, Salt Lake City—Rasmussen Equipment & Supply Co., 1960 So. Second W. HU 5-5478
Wash., Seattle—Sahlberg Equip., Inc., 5950
4th Ave. So. MO 6060
Wyo., Cheyenne—Wortham Machinery Co., 517 W. 17th St. Phone 7-7766

KWIK-MIX CO., DIV. OF KOEHRING CO., 235 W. Grand Ave., Port Washington, Wis.

Trucks (bag, barrel, drum, box type, elevating or lifting, factory and warehouse, gasoline fork, motorized hand, industrial, gasoline lift, hydraulic lift, power-driven lift, motor, packing house, pallet, skid handling).

Representatives

Ariz., Phoenix—Neil B. McGinnis Co., 500 So. Central Ave.
Calif., Bakersfield — San Joaquin Tractor Co., P. O. Box 216, Station B
Calif., Los Angeles — Harron, Rickard & McCone Co., 3850 Santa Fe Ave.
Calif., Oakland — Industrial Foundry & Supply Co., Inc., 2500 Union St.
Calif., San Francisco—Standard Machinery Co., 450 Bayshore Blvd.
Calif., South Gate—Cost Reduction Equipment Co., 5200 Chakemco St.
Calif., Stockton—Action Equip. Co., 2915 E. Miner St.
Colo., Denver—Armstrong Caster Co., 465 Santa Fe Dr.
Idaho, Boise—Engineering Sales & Service, Inc., 410 Capitol Blvd.
N. Mex., Albuquerque — Harry Cornelius Co., 1510 No. Second St.
N. Mex., Hobbs—Leaco Co.
Ore., Portland—Columbia Equipment Co., 1240 S. E. 12th Ave.
Ore., Portland — Pacific Builders Supply Co., 400 No. Thompson St.
Utah, Salt Lake City—Kimball Equipment Co., 232 W. 17th So. St.
Utah, Salt Lake City—National Equipment Co., 101 W. Second St.
Wash., Seattle — Pacific Hoist & Derrick Co., 2300 Fourth Ave.
Wash., Spokane — American Machine Co., 1026 W. Broadway

ash., Spokane — A 1026 W. Broadway

LAHER SPRING & TIRE CORP., 2615 Magnolia, Oakland 7, Calif.

Electric cars and trucks.

Branch Offices
Calif., Los Angeles—807 E. 8th St. TR 3535
Calif., Sacramento—1217 16th St. GI 2-6851
Calif., San Francisco—98 12th St. KL 2-2106
Ore., Portland — 133 N. W. 15th Ave. CA Ore., Po 7-1406

See advertisement on page 70

Utah, Salt Lake City-541 So. State St. EM 3-5871 Wash., Seattle—714 E. Pike St. EA 0366

Representatives
Ariz., Phoenix — Superior Equipment Co., P. O. Box 6325
Calif., Los Angeles — B. Hayman Co., 3301
Leonis Blvd.
Calif., Los Angeles—James P. Kinney Co., 5141 Telegraph Rd.
Calif., Oakland—Lyco Equipment Co., 1115
Webster St.
Calif., Pebble Beach—Col. Geo. Townsend, Box 454
Box 454

Calif., Pebble Beach—Col. Geo. Townsend. Box 454
Calif., Redwood City—Howard Burt & Son, 505 Standish St.
Calif., Salinas — Dick Millburn, 324 No. Main St.
Calif., Santa Barbara — Mel Smith, Valley Club of Montecito, P. O. Box 1140
Colo., Denver—Collier Electric Co., 700 W. 13th Ave.
Colo., Denver — Manning, Hone & Siekmeier, Inc., 1449 So. Broadway Mont., Billings—Hope Enterprises, Box 1956
Ore., Oswego—Wm. A. LaValley, 110 Oak St.
Wash., Seattle—Air Mac, Inc., 3638 Fourth Wash., Seattle-Air Mac, Inc., 3838 Fourth Ave. So.

LAMSON CORP., Lamson St., Syracuse 1, N.Y.

Conveyors (automatic, bag and bale, belt, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, overhead, pallet, pneumatic, portable, skate, slat, trolley and special). Storage racks, Conveyor rollers, Conveying, Elevating and Portable tables, Pallet loaders, Erecto conveyor (pre-engineered) units.

Calif., Los Angeles — 306 E. Washington Blvd. RI 7-0615 Calif., San Francisco—555 Bryant St. SU 1-8852

Representatives

Colo., Denver—Wm. Colin Kirk & Associates, 1:97 Stout St. KE 4440

Wash., Seattle—H. L. Kirkwood, 2202 First
Ave. W. SE 6860

Wash., Seattle — Thurlow-Moe, Inc., 2405

11th Ave. S. W. EL 5272 and MU 1323

(Erecto Dealers)
Calif., Berkeley — Lamson Mobilift Corp.,
2730 San Pablo. AS 3-5535
Calif., Fresno—Valley Handling Equipment
Co., 3807 E. Jensen

LAMSON MOBILIFT CORP., 835 S.E. Main St., Portland 14, Ore.

Industrial trucks (gasoline powered, both st and control models and sit-down models).

Branch Office
Calif., Berkeley—2730 San Pablo Ave. AS
3-5535

Ariz., Phoenix—Clifton Truck Rentals, 935
Van Buren St. E. AL 8-8083
Calif., Fresno—Elliott Mfg. Co., 1735 Ventura Ave. AD 3-6236
Calif., Gridley—Butte Equipment Co., P. O.
Box 205. Phone 5683
Calif., Los Angeles—W. T. Billard, Inc., 734
E. Third St. MI 2659
Colo., Denver—Kistler Machine Shop, 2536
So. Delaware. RA 2-8748
N. Mex., Albuquerque—N. C. Ribble Co., 1304 No. Fourth. Phone 3-3733
Ore., Portland—Lift Truck Parts & Service, 736 N. E. Broadway. AT 1-1213
Utah, Salt Lake City—Industrial Supply Co., 131 Social Hall Ave. EM 3-6727
Wash., Seattle—Masterson's Equipment Supplies, Inc., 2720 Westlake No. GA 0245
Wash., Spokane—Standard Equipment Co., 2725 F. Scanson

Wash, Spokane—Standard Equipment Co., 2725 E. Sprague Ave. KE 5-2014 Wash., Yakima—Northwest Equip. Co., P.O. Box 73. GL 3-9925

LANGE LIFT CO., 4275 No. 124th, Milwaukee 16, Wis.

Trucks (elevating and lifting, hand lift, hand-electric lift, hand-mechanical lift, hydraulic lift, sheet handling, skid handling, straddle).

Representative
Calif., North Hollywood — Magnesco, 7340
Radford. ST 7-0838

LANGSENKAMP, F. N., CO., 229 E. South St., Indianapolis 25, Ind. Dock boards, Ramps, Pallets.

Representatives
Calif., Los Angeles — Davis Material Handling Co., 4891 Huntington Dr. CA 2-7197

LANSING CO. - LINCOLN ENGINEERING

Calif., Los Angeles—Green Penny Co., 4180 E. Noakes

LANSING CO., 521 N. Cedar St., Lansing, Mich.

Hand trucks, Platform trucks, Dellies, Lift jacks and skids, Towline trucks, Trailer trucks, Hand carts, Wheelbarrows.

Calif., San Francisco—101 Park. EX 2-2974

Representative
Ore., Portland — Beaver Sales, 134 S. E.
Taylor. BE 2-3107

LAWRENCE MACHINE & MFG. CO., 2431 Sixth Ave. S., Seattle 4, Wash. Panel feeders, Stackers, Unloaders, Lifts.

Wash., Seattle — Tallman Machinery Co., P. O. Box 117. PR 8-2161

LECTRO-LIFT, 2949 N. W. St. Helens Rd., Portland 10, Ore.

Representatives
Caltf., Los Angeles — Glenn Harshbarger
Co., 588 Mateo. MA 4-7491
Callf., South San Francisco — Hamerslag
Equipment Co., 110 Freeway. JU 6-1789
Utah, Ogden—Horsley Co., 2416 Grant. EX
2-8472 Wash.

Jash., Seattle—Cascade Handling Equip-ment, 1741 1st Ave. So. MA 2-7069

LEDEEN, INC., see ENGINEERING PRODUCTS CO., DIV. OF LEDEEN, INC

LEE ENGINEERING CO., 269 Armistice Blvd., Pawtucket, R.I.

Elevators (portable tiering), Stackers (portable electric, portable hand), Trucks (electric fork, hand, motorized hand, hand lift, hand-electric lift, hydraulic lift, skid handling, straddle, electric tiering), Truck floorlocks.

Representatives

Ariz., Phoenix—Naumann Lift Trucks, Inc., 2308 So. 11th Ave. AL 8-8951

Calif., Los Angeles—Boman Co., 3316 E. Olympic Blvd. AN 9-0761

Calif., North Hollywood — Magesco, 7340

Radford. ST 7-0838

Colo., Thornton—Equipment Engineering, 1400 Ruth Dr. AT 7-5255

LEE RUBBER & TIRE CORP., see RE-PUBLIC RUBBER DIV.

LESCHEN WIRE ROPE DIV., H. K. PORTER CO., 2727 Hamilton Ave., St. Louis 12, Mo.

Slings (wire rope), Wire rope.

Branches

Los Angeles-6424 E. Fleet St. RA Calif San Francisco-520 Fourth St. GA 1-8134 Seattle - 1041 Alaskan Way So. SE 0851

LETOURNEAU-WESTINGHOUSE CO., 2301 N.E. Adams St., Peoria, Ill.

Tournatractors (heavy-duty, rubber-tired, diesel), Cranes (jib, mobile), Traveloaders (mobile, belt-type), Tournarope (wire rope).

Representative

Representatives

Ariz., Phoenix—Road Machinery Co., 716
S. 7th St. AL 8-7981
Ariz., Tucson—Road Machinery Co., 2601
So. Fourth Ave. MA 4-2539
Calif., Bakersfield—Crook Co., 2314 N.
Chester Ave. EX 9-1092
Calif., Los Angeles—Crook Co., 2900 Santa
Fe Ave. LU 8-7214
Calif., Oakland—Blakemore Equipment
Co., 9025 G St. LO 2-3482
Calif., Sacramento—Blakemore Equipment
Co., 769 N. 1681 St. GI 3-3965
Colo., Denver—Johnson-Tudor Co., 6198
Colorado Blvd. AT 8-1513
Idaho, Boise—G. K. Machinery Co., 5200
Federal Way. Phone 4-5593

Mont., Billings — Western Construction Equipment Co., P.O. Box 2537. Phone 9-5501 Mont., Great Falls—Western Construction Equipment Co., 2322 River Dr. GL 3-1405 (TWX).

(TWX)
Nev., Reno—Pioneer Equipment Co., 525
Kietzke Lane. FA 3-1333
N. Mex., Albuquerque—Contractor's Equipment & Supply Co., 707 Broadway N.E.
Phone 3-3565

Phone 3-3565
Ore., Eugene—Loggers & Contractors Machinery Co., 540 Filmore St. DI 5-4334
Ore., Portland—Loggers & Contractors Machinery Co., 240 S.E. Clay St. BE 2-0151
Utah, Salt Lake City—Rocky Mountain Machinery Co., 1485 So. Second W. St. HU 4-4378
Wash., Seattle—Western Tractor & Equipment Co., 745 Lucile St. LA 8600
Wash., Spokane—Inland Diesel & Machinery Co., E. 3511 Trent Ave. KE 5-2434
Wyo., Casper—Moss Equipment & Supply Co., 3100 E. Yellowstone. Phone 2-4547

LEWIS, G. B., CO., 406 Montgomery St., Watertown, Wis.

Woven wood-and-wire returnable shipping boxes; 4-wheel box trucks; stacking and skid boxes; Fiberglass reinforced polyester tote boxes, trays and 4-wheel trucks.

Representatives
alif., Fresno—Valley Forklift Rental &
Equipment Co., 2424 So. Railroad Ave.
Phone 8-2074 alif., Los Angeles—Irv 821 Mateo St. TU 3176 Irving G. King & Co.,

See advertisement on page 136

Calif., Oakland—E. C. Buehrer Associates, Inc., 283 Fourth St., TE 6-2082
Colo., Denver—L. J. Sinow, 318 Albion St. AL 5-7245
Idaho, Boise—Idaho Chemical Industries, Inc., P.O. Box 2641. Phone 4-2431
Ore., Portland — Oregon Handling Equip. Co., 2949 N. W. St. Helens Rd. CA 8-4196
Utah, Sait Lake City—Equipment Supply Co., 16 Post Office Pl. Phone 3-9074
Wash., Seattle—A.I.M. Plastics Co., 2450 6th Ave. So. MA 0279

LEWIS-SHEPARD PRODUCTS, INC., 1016 Walnut St., Watertown, Mass.

Carts (hand, push, other), Cranes (hand power), Jacks (hydraulic), Racks (pallet, storage, other), Stackers (portable electric, portable hand), Trucks (bag, barrel, drum, box type, die handling, elevating or lifting, factory and warehouse, electric fork, hand, motorized hand, industrial, hand lift, hand-electric lift, hand-mechanical lift, hydraulic lift, power-driven lift, packing house, pallet, paper roll, sheet handling, skid handling, straddle, electric tiering, other), Wheels (general industrial, hand truck, rubber tired, tractor, trailer).

Representatives

Representatives

Calif., Los Angeles—M. E. Canfield Co., 419
E. Third St. MA 6-6608

Calif., Redwood City — Howard Burt & Sons, 505 Standish St. EM 8-2806

Colo., Denver—Harry H. Neumann, 1863

Wazee St. AL 5-8452

Ore., Portland—Liftruck & Equipment Co., 6840 S.W. Macadam Ave. CH 4-9111

Utah, Salt Lake City—Modern Equipment Co., 52 W. Second So. St. DA 2-5887

Wash., Seattle—Liftruck & Equipment Co., 558 First Ave., So. MU 2-6336

LIFT TRUCKS, INC., 2425 Spring Grove Ave., Cincinnati 14, Ohio

Tractors (electric, warehouse), Trucks (electric fork, industrial, motorized, hand, hand lift, hand-electric lift, hand mechanical lift, hydraulic lift, powerdriven lift, pallet, skid handling, straddle, electric

Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza. AN 9-0567 Calif., San Francisco—S. A. Stephens Co., 55 New Montgomery St. YU 2-2593 Colo., Denver—Plant Equipment Co., 1400 Market St. AL 5-5411 Utah, Salt Lake City—Lang Co., P.O. Box 479. DA 8-8341 Wash., Seattle—Burleigh Co., 5245 Pullman Ave. LA 4-5245

THE LINCOLN ELECTRIC CO., 22801 St. Clair Ave., Cleveland 17, Ohio

Battery Chargers.

Branch Offices

Ariz., Phoenix—420 So. Third Ave. AL 4-5894

Ariz., Tucson—650 No. Sixth Ave. WA 1-4551 Calif., Emeryville—1303 Stanford Ave. OL 5-61294 Calif., Fresno—444 Blackstone Ave. Phone 6-1294 Calif., Los Angeles—2661 So. Yates Ave. RA 3-7281 Colo., Denver—1224 Walnut St. AC 2-9533 Ore., Portland—1034 N.E. Russet St. BU 9-8881 Ore., 1-Wash., Seattle—543 W. Nevada Ave. MA 3-2235

N. Mex., Albuquerque—Big Three Welding Supply Co., 4318 Second St. N.W. DI 4-1644

1644 Mont., Billings—Great Northern Tool & Supply, 2224 Minnesota. Phone 2-2175 Utah, Salt Lake City—Industrial Supply Co., 121 Social Hall. Phone 3-6727

LINCOLN ENGINEERING CO. OF CALIFORNIA, 2844 So. Grand Ave., Los Angeles 7, Calif.

Pumps (heavy material handling).

Calif., Berkeley—3033 San Pablo Ave. AS 3-6726 Ore., Portland—1018 S. E. Eighth Ave. BE

Representatives

Ariz., Mesa—Bauer's Parts & Equipment
Co., 221 W. Main St.

Ariz., Phoenix—Colyear Motor Sales Co.,
338 W. Adams St.

Ariz., Stafford—Motor Supply Co., 725 riz., Station—Station Station St. Fifth St. Tucson—Motor Supply Co., 140 So. Calif., Anaheim—Smirl Supply Co., 11031 Hwy. 101 Calif., Bakersfield—Bloxom & Co., 514 E.

18th Calif., Bakersfield — Frazier-Wright, 2530 Chester Ave.
Calif., Burbank—Jet-Lube, Inc., 3093 No.
California St.
Calif., Concord—Gil's Hardware, 1835 Colfax.
Corcora—Sawtelle & Rosprim,

Calif., Corcoran — Sawtelle & Rosprim, North & Otis Sts. Calif., Delano—George F. Haddican, High

St. Calif., El Centro—W. H. Douthitt Steel & Supply Co., Rt. No. 1 Calif., Eureka—Humboldt Supply Co., 2029

Calif., Eureka—Humboldt Supply Co., 2029
Broadway
Calif., Fresno—Allied Equipment Co., 1824
Santa Clara
Calif., Fresno—Gordon Equipment Co., 2309
Los Angeles St.
Calif., Fresno—Rol-Pak Filter Service Co., 3063 Church St.
Calif., Glendale—Air Associates, Inc., 1231
Airway Dr.
Calif., Glendale—Allube Corp., 928 Allen
Ave.

Ave. Calif., Lompoc—Hobbs Bros., 136 No. "H"

Ave.
Calif., Lompoc—Hobbs Bros., 136 No. "H"
St.
Calif., Long Beach—Johnson Testers, Inc., 5885 Paramount Blvd.
Calif., Los Angeles — Bevis Machine Co., 406 So. Main St.
Calif., Los Angeles—Brent Diesel Filter Service, 440 Seaton St.
Calif., Los Angeles—Carburetor Electrical Service, 1904 E. Seventh St.
Calif., Los Angeles—Carburetor Electrical Service, 1904 E. Seventh St.
Calif., Los Angeles—Degen-Fiege Co., 4559 W. Sheila St.
Calif., Los Angeles—Degen-Fiege Co., 4559 W. Sheila St.
Calif., Los Angeles—Garlinghouse Brothers, 2415 E. Washington Blvd.
Calif., Los Angeles—Carlinghouse Brothers, 2415 E. Washington Blvd.
Calif., Los Angeles—Larson Equipment Co., 2421 E. 57th St.
Calif., Los Angeles—Marshall Tool & Supply Cop., 2850 E. Olympic Blvd.
Calif., Los Angeles—The Republic Supply Co. of Calif., 2600 So. Eastland Ave.
Calif., Los Angeles—Leo M. Shanahan Co., 4274 So. Hoover
Calif., Los Angeles—Shaw Sales & Service, 5100 Anaheim-Telegraph
Calif., Los Angeles—Shaw Sales & Service.
Si00 Anaheim-Telegraph
Calif., Los Angeles—Warren & Bailey Co., 3228 So. Garfield
Calif., Los Angeles—Warren & Bailey Co., 3228 So. Garfield
Calif., Los Angeles—Warren & Bailey Co., 3228 So. Garfield
Calif., Los Angeles—United Equipment & Supply, 1859 Riverside
Calif., Los Angeles—Warren & Bailey Co., 3228 So. Garfield
Calif., Los Angeles—United Equipment & Supply, 1859 Riverside
Calif., Los Angeles—United Equipment & Supply, 1859 Riverside
Calif., Los Angeles—United Equipment & Supply, 1859 Riverside
Calif., Los Angeles—United Equipment & Supply, 18008 Sherman Way
Calif., Los Angeles—United Equipment Co., 4274 Webster St.

Co., 777 E. 2nd St.
Caiif., Richmond—Tieslau Co., 900 Hoffman
Caiif., Sacramento—Gerlinger Motor Parts, 2020 "K" St.
Calif., Sacramento—K n a p p Industrial Service Co., 515 12th St.
Calif., San Bernardino—Reliable Bearing & Supply Co., 263 So. "E" St.
Calif., San Diego—Construction Machinery Co., 2175 Newton Ave.
Calif., San Diego—Minute Mower Service, 737 West St.
Calif., San Diego—Minute Mower Service, 737 West St.
Calif., San Francisco—Baker-Hamilton, 700 Seventh St.
Calif., San Francisco—Bearing Specialty Co., 128 Texas
Calif., San Francisco—Coast Equipment Co., 444 Eighth St.
Calif., San Francisco—Industrial Hose Supply Co., 154 8th St.
Calif., San Francisco—C. W. Marwedel, 1235 Mission St.
Calif., San Francisco—Pauli & Griffin Co., 509 Sixth St.
Calif., San Francisco—Wait Motor Supply Co., 234 Seventh St.
Calif., San Jose—Ward Farnsworth, 383 No. 17th St.
Calif., San Jose—Ward Farnsworth, 383 No. 17th St.
Calif., San Leandro—K & H Sales, 1800

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Calif., Oakland—Forse-Glatt Western Sales Co., 4148 MacArthur Bivd. Calif., Oakland—Pacific Tool & Supply Co., 251 Eighth St. Calif., Oakland—Viking Supply Co., 4545 1-OL one Oakport St. ve

Oakport St.
Calif., Oxnard—Coast Tools, Inc., 749 So.
Oxnard Blvd.
Calif., Oxnard—Maulhart Equipment Co.,
815 No. Oxnard Blvd.
Calif., Pomona—Reliable Bearing & Supply
Co., 77 E. 2nd St.
Calif., Richmond—Tieslau Co., 900 Hoffman

17th St.
Calif., San Leandro—K & H Sales, 1800
Williams St.
Calif., San Leandro—The Republic Supply
Co., 1919 Williams St.
Calif., Stockton—Hickinbotham Bros., Ltd.,
536 So. Aurora St.
Calif., Stockton—Industrial Parts Supply
Co., 3900 No. 99 Hwy.
Calif., Torrance—National Supply Co.
Calif., Vernon—Gorman & Co., 5420 So.
Santa Fe

Santa Fe Calif., Watsonville — Farmers Mercantile

Co.
Colo., Denver—The Mine & Smelter Supply Co., 1422 17th St.
Colo., Denver—Plant Equipment Co., 1400
Market St.
Idaho, Boise — Intermountain Equipment

Manket G.

Idaho, Boise — Intermountain Equipment Co.

Idaho, Pocatello — Intermountain Equipment Co., 210 No. Fourth Ave.

New., Fallon—Motor Supply Co., 222 Center St.

N. Mex., Albuquerque — McCaffery-Way Materials & Supply, Inc., 1800 Third St.

N. W.

N. Mex., Albuquerque—Winter-Weiss Co. of New Mexico, 6130 Second St., N.W.

N. Mex., Carlsbad—Car Parts Depot, Inc.

Ore., Corvallis—Mater Machine Works, 520 So. First St.

Ore., Eyene—Oregon Supply Co.

Ore., Klamath Falls—Fred E. Barnett Co.

Ore., Portland—W. J. Burke & Co., 2344 N. W. 21st Ave.

Ore., Portland—General Rubber & Co., 238 N.W. Sixth Ave.

Ore., Portland—General Rubber & Asbestos Co., 205 N.W. Fifth Ave.

Ore., Portland—Goodyear Rubber & Asbestos Co., 205 N.W. Fifth Ave.

Ore., Portland—Oil Filter Service Co., 615 S.E. Market St.

Ore., Portland—Woodbury & Co., 585 No. Lagon. Swan Island

Ore., Portland—Woodbury & Co., 585 No. Lagoon, Swan Island

Ore., Roseburg—Davis Industrial Products Co. re., Salem—Stevens Equipment Co., 110 Division St.

Utah, Salt Lake City—Oscar E. Chytraus Co., 987 S.W. Temple St. Utah, Salt Lake City—Motor Mercantile Co., 126 S.W. Temple

Wash., Ephrata—Intermountain Equipment Co., 1220 "B" St. S.W. Wash., Pasco - Intermountain Equipment

ash., Seattle—Campbell Industrial Sup-ply Co., 3433 Airport Way at Spokane Vash., Seattle—Oil Filter Service Co., Inc., 1019 Westlake, No.

Wash., Seattle — Steam Supply & Rubber Co., 123 Jackson St.

Wash., Seattle—Yukon Equipment, Inc., 327 Colman Bldg. Wash., Spokane—American Machine Co., W. 1026 Broadway

ash., Spokane — Intermountain Equipment Co., E. 611 Sprague Ave.

Wash., Spokane-A. G. Mohn Co., E. 102

Wash., Spokane—A. G. Monn Co., E. 102 Sprague Ave. Wash., Spokane — Motor Supply Co., W. 1202 First Ave. Wash., Spokane — Oil Filter Service Co., Inc., 3720 E. Trent St. Wash., Tacoma — Oil Filter Service Co., Inc., 1216 Tacoma Ave., So.

LINK-BELT CO., Dept. 459-WI, Prudential Plaza, Chicago 1, III.

dential Plaza, Chicago 1, III.

Backstops; Bases (motor); Bearings (babbitted, ball, roller, sleeve); Belting, drive (chain or link, rubber); Bins; Buckels, Elevator; Car Pullers; Chains Chains for drives and Conveyors (detachable link, roller, silent transmission, steel, cast, riveliess, Promal and others); Clutches (friction and jaw); Collars (shaft); Conveyors, (apron, automatic, bag, bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, overhead, oscillating, pellet, screw, slat, trolley, truck-tow, vertical, vibrating, special and other); Dumpers, Unloaders (railroad car, truck); Elevators (barrel, packages, belt, bucket, continuous acrew, vertical, vibrating, special and other); Dumpers, Unloaders (railroad car, truck); Elevators (barrel, packages, rotary-table, acrew, vibrating); Couplings, shaft; Fluid drives; Gearmotors; Gears (bevel, helical, worm); Gear drives (in-line helical, parallel shaft, worm); Hangers (shaft); Hoith (sqin), Ice Crushers, Lee slingers, Jettlingers (for bulk materials), Pullers and spotters (car), Pulleys (conveyor, power unloading), Motogears; Motors (gear variable speed); Pillow blocks; Pulleys; Reducers, speed (helical gear, parallel shaft, motorized, shaft mounted, spur gear, worm gear); Screens, vibrating; Sprockets; Taksups; Tables (conveying and elevating), Trolleys; Transmissions; Varlable speed drives; Winches; Windlasses.

Coast Plants, Branch Stores and District Offices

Coast Plants, Branch Stores and District Offices Calif., Los Angeles—P.O. Box 2056 (1200 Sycamore St., Montebello) RA 3-9341 Calif., San Francisco—400 Paul Ave., JU 7-6400 Colo., Denver—Schloss & Shubart, 1626 Wazee St., AC 2-2741

See advertisement on page 32

Ore., Portland—3030 N.W. Industrial St. CA 6-2601
Utah, Salt Lake City—108 So. Fourth W. St. DA 2-2539
Wash., Seattle—3405 Sixth Ave., So. SE 8200
Week Spokens V. 1600 Vash., Spokane—No. 1303 Washington St. FA 8-5820

Wash., Spokane—No. 1303 Washington St. FA 8-5820

Distributors

Ariz., Phoenix—Thunderbird Sales Corp., 2255 W. McDowell Rd. AL 4-8874
Ariz., Prescott—Arizona General Supply Corp., P.O. Box 110. Phone 310
Calif., Anaheim—All Bearing Service, Inc., 112 So. East St. KE 5-7259
Calif., Bakersfield—California Truck & Industrial Equipment Co., 2801 Brundage Lane. FA 5-8914
Calif., Colton—Valley Industrial Supply Co., 401 So. 8th St. TA 5-4342
Calif., El Centro—Valley Auto Supply, 633
State St. EL 2-3391
Calif., Eureka—Fred E. Barnett Co., Broadway and Harris Sts. Phone 2-3791
Calif., Fresno—Bearings Supply Co., 2933
Hamilton Ave. AD 3-7144
Calif., Long Beach — Barnes & Delaney, 2600 Atlantic Ave. GA 4-1601
Calif., Los Angeles—All Bearing Service, Inc., 5256 E. Washington Blvd. AN 1-3135
Calif., Los Angeles—The Bearing House, 5408 Santa Fe Ave., Vernon. LU 2-6304
Calif., Modesto—Geiger Iron Works, Grand and Willow Sts. LA 3-6387
Calif., Modesto—Geiger Iron Works, Grand and Willow Sts. LA 3-6387
Calif., Monterey—Sweet Service Co., 534
Washington St. Phone 5-4119
Calif., Oakland—American Ball & Roller Bearing Co., 273 26th St. HI 4-8892
Calif., Oakland—Hoffmeyer Belting & Supply Co., 2424 Webster St., GL 1-6528
Calif., Oakland—Hoffmeyer Belting & Supply Co., 541 E. Eighth St. TE 4-8636
Calif., Oakland—Bearing Specialty Co., 16th, 16th Sacramento—Geiger Iron Works, 14th & "S" Sts. HI 6-2755
Calif., Sacramento—Geiger Iron Works, 14th & "S" Sts. HI 6-2755
Calif., San Diego—Gould Hardware & Machinery Co., 2121 Main St. BE 9-9151
Calif., San Francisco—Bearing Specialty Co., 123 Texas St. HE 1-440
Calif., San Francisco—Weeks-Howe-Emerson Co., Industrial Div., 750 Harrison St., SU 1-3662
Calif., San Jose—Orchard Supply Hardware, Industrial Div., 750 Harrison St.

Calif., Santa Cruz—Sweet Service Co., 504
Front St., GA 3-5697
Calif., Stockton—Geiger Iron Works, Scotts
Ave. and Pilgrim St. HO 6-8623
Calif., Ukiah—Fred E. Barnett Co., North
Highway 101. HO 2-6554
Calif., Van Nuys—So-Cal Bearing & Supply Co., 7251 Van Nuys Blvd., ST 5-5431;
ST 3-2760
Calif., Watsonville—Sweet Service Co., 38
Alexander St. Phone 4-4775
Idaho, Boise—Western Bearings, Inc., 520
Front St. Phone 2-6583
Idaho, Parma—Transmission Products
(Div. Parma Water Lifter Co.). Phone
2-2611

(Div. Parma Water Lifter Co.). Phone 2-2611 (Jaho, Pocatello—Western Bearings, Inc., 156 So. Third St. CE 3-0762 (Jaho, Twin Falls—Western Bearings, Inc., 233 Fourth Ave. W. RE 3-8562 Mont., Billings—Bearings Supply Co., Inc., 2nd Ave. No. at 12th St. Mont. Great Falls—Carl Weissman & Sons, 218 Fourth St., So. GL 3-0301 Mont., Missoula—Missoula Mercantile Co., 1600 Harker. Phone 9-4147 N. Mex., Albuquerque—Montezuma Bearings Co., 1413 First St., N.W. CH 7-0223 N. Mex., Farmington—Vance Supply Co. N. Mex., Hobbs—Vance Supply Co. Cgrimes St. EX 3-4416 Nev., Reno—Sierra Industrial Co., Inc., 307 Merrill Ave. FA 3-1301 Ore., Coos Bay—Coos Bay Supply Co., 1023 So. Broadway. CO 7-4111 Ore., Eugene—American Steel & Supply Co., 888 Garfield St. DI 5-0373 Ore., Klamath Falls—Fred E. Barnett Co. of Oregon, 600 Spring St. TU 4-5153 Ore., Medford—American Sweel & Supply Medford, Inc., 703 So. Grape St. SP 2-7181

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mediorid, inc., 703 So. Grape St. SP 2-7181

Ore., Pendleton—A. W. Davis Supply Co., P.O. Box 676. Phone 761

Ore., Portland—Brezee Supply Co., 237

S.W. Front Ave. CA 7-5447

Ore., Portland—Power Transmission Products (Div. Portland Iron Works), 1107 N. W. 14th Ave. CA 7-1271

Ore., Roseburg—Douglas Supply Co., 649

N. E. Rose St. OR 3-6638

Ore., Salem—Stevens Equipment Co., 110

Division St. EM 4-2231

Utah, Price—H & J Supply Co., 540 So.

Third St. W. ME 7-0600

Utah, Salt Lake City—Industrial Supply

Co., Inc., 121-135 Social Hall Ave. EM

3-6727

Utah, Salt Lake City—Industrial Supply Co., Inc., 121-135 Social Hall Ave. EM 3-6727 Utah, Salt Lake City—Utah Bearing Co. 626 So. West Temple, EM 4-7887; 7538 Wash., Aberdeen — Grays Harbor Equipment Co., 419 So. F St. Phone 6100 Wash., Everett—Everett Trans. & Rubber Co., 1106 Hewitt Ave., AL 9-3189 Wash., Hoquiam—Lamb-Grays Harbor Co., Blaine and Firman Sts. HO 1000 Wash., Seattle — Bearing Engineering & Supply Co., 65 Horton St. MA 2-2744 Wash., Spokane—Carter-Miller Mill Furnishing Co., No. 1320 Ash St. FA 7-6624 Wash., Walla Walla—Drumheller Co., 1 W. Alder St. JA 5-4880 Wash., Wenatchee—Wells & Wade Hardware, 201-215 So. Wenatchee Ave. NO 2-1867

Wash., Yakima—Central Chain & Transmission Co., Inc., 709 So. First St. GL

7-0100
 Wash, Yakima—Yakima Bearings Co., 709
 So. First St. GL 7-6188
 Wyo., Casper—Industrial Distributors, Inc., Industrial Ave. at Spruce. Phone 3-6677

LIPPMANN ENGINEERING WORKS, INC., 4603 W. Mitchell St., Milwaukee 14, Wis.

Screens and conveyors for industrial and pit and quarry industries, Rock crushers.

Representatives
Calif., Los Angeles—Larson Equipment Co.,
3838 Santa Fe Ave. LU 5-1181
Calif., San Francisco — Coast Equipment
Co., 444 Eighth St. MA 1-5740

Idaho, Boise Southern Idaho Equipment Co., 204 E. Myrtle St.

Idaho, Idaho Falis — Lang Construction Equipment Co., P. O. Box 1254. Idaho, Twin Falls—Southern Idaho Equip-ment Co., 1925 Kimberly Rd. Mont., Great Falls—Monty Machinery Co., 2121 Vaughn Rd. GL 2-7905

Ore., Eugene-Cramer Machinery Co., 1830 W. Seventh Ave. DI 3-1411 Ore., Portland — Cramer Machinery Co., 1140 S. E. Seventh Ave. BE 2-0156

Stah, Salt Lake City—Lang Construction Equipment Co., First So. and Second W. DA 8-8341

Wash., Seattle—Hulse Machinery Co., Inc., 5211 First Ave. So. PA 5-0250

LITTLE GIANT — MARTIN-DECKER

LITTLE GIANT PRODUCTS, INC., 1530-50 N.E. Adams St., Peoria, III. Lift truck attachments, Hand winches,

Representatives
Calif., San Francisco — C. L. Norton Co.,
Transportation Bidg., Embarcadero at
Mission YU 2-9029
Calif., San Gabriel—Abernathy & Co., 361
No. Anoyah. AT 4-4858
Ore., Portland—O & S Supply Co., P. O.
Box 3611. CA 6-6013

LOUDEN MACHINERY CO., 607 W. Broadway, Fairfield, Ia.

Conveyors (overhead), Cranes (gantry, jib, pillar, swing, double-beam overhead, electric and electric traveling overhead, foundry overhead, hand power everhead, I beam overhead, monorail overhead), Hoists (monorail).

Calif., Montebello—Ajay Co., 3201 W. Beverly Blvd. RA 3-0277
Calif., San Francisco — Acme Equipment Co., 801 Minnesota St. VA 4-5700
Colo., Denver—Plant Equipment Co., 1400
Market St. AL 5-5411
Utah, Salt Lake City — Utility Engineers, Inc., 630 Dooly Bldg. Phone 3-4682
Wash., Seattle — Charles Industrial Sales Co., 5201 First Ave. So. PA 3-6010

LUDLOW PAPERS, INC., P. O. Box 135, Needham Hts. 94, Mass.

Gummed sealing tapes, Industrial packaging papers, Plastic films, Spiral wrap machines.

Calif., Los Angeles—4903 Everett Ave. LU 8-8526 Calif., San Francisco—1485 Bayshore Blvd. JU 6-4070

Representatives
Calif., Fresno—San Joaquin Paper, 459 Van
Ness
Calif., Los Angeles—Zellerbach Paper Co.,
4000 E. Union Pacific
Calif., San Francisco — Blake-Moffitt &
Towne, 599 Eighth St.

LYON METAL PRODUCTS, INC., 40 Monroe Ave., Aurora, III.

Steel shelving, Racks, Bins, Lockers, Cabinets, Shop

Branches
Ariz., Phoenix.—5545 No. Kay Dr. AL 8-8511
Calif., Los Angeles — 3650 Union Pacific
Ave. AN 9-8161
Calif., San Francisco—P.O. Box 3096, Rincon Annex, SU 1-5490
Colo., Denver—2142 Welton St. AC 2-4861
Ore., Portland—P.O. Box 3797. CA 8-2713
Utah, Salt Lake City.—P. O. Box 30, Sugar
House Sta. CR 8-8734
Wash., Seattle—1755 Utah Ave. MU 2-0383

MACWHYTE WIRE ROPE CO., 2979 14th Ave., Kenosha, Wis.

Internally lubricated preformed wire rope, Braided wire rope slimps, Aircraft cable and assemblies, Monel metal, stainless steel wire rope and wire rope assemblies.

Calif., Los Angeles—185 So. Myers St. AN 8-2884 Calif., San Francisco—188 King St. EX 2-4966 Portland-1603 N.W. 14th Ave. CA 6-Wash., Seattle—87 Holgate St. MA 2-1715

MAGESCO, 7340 Radford Ave., No. Hollywood, Calif.

Axies (trailer), Casters, Pallet Loaders, Ramps (loading), Tires (industrial truck and trailer), Wheels (general industrial, hand truck, rubber should)

MAGLINE, INC., 1930 Mercer St., Pinconning, Mich.

Magliner magnesium dockboards, mobile loading ramps, Delivery truck ramps, Pallat dollies, Barrel skids, Cenveyors, Two- and four-wheel trucks, Magna-Lum T-L plates.

Ariz., Phoenix.—Ristler Industrial Service, 902 So. Central Ave. AL 6-7196 Calif., Los Angeles.—W. T. Billard, Inc., 734 E. Third St. MI 2659

See advertisement on page 141

Calif., Los Angeles—Colson Equip. & Supply Co., 1317 Willow St. TR 5743 Calif., Los Angeles—Yale & Towne Mfg. Co., 5711 Olympic Blvd. RA 3-9761 Calif., San Diego—Winn Supply Co., 256 Seventh Ave. BE 3-3106 Calif., South San Francisco—Hamerslag Equipment Co., 116 Freeway Blvd. JU 6-1789

1789
Colo., Denver—Neumann Equipment Co., 1863 Wazee St. AL 5-8452
Ore., Portland—Air-Mac Inc., 1111 S. E. Grand Ave. BE 4-6524
Utah, Ogden — Horseley Co., 2416 Grant Ave. Phone 2-1847
Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl. EM 3-9074
Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. So. MU 3388
Wash., Spokane—Air-Mac, Inc., E. 3710

Ave. So. Mu 3388
Wash., Spokane—Air-Mac, Inc., E. 3710
Trent Ave. KE 5-2005
Wash., Yakima — Air-Mac, Inc., 313 No.
Grandview. GL 2-1552

MAGNESIUM CO. OF AMERICA, 5222 Indianapolis Blvd., East Chicago, Illinois.

Light weight dock boards, Portable yard ramps, Hand trucks, Pallet dollies, Cross-over bridges, Van ramps, Truckers' specials, Four-wheel plat-form trucks.

Van ramps, Truckers' specials, Four-wheel platform trucks.

Representatives

Ariz., Phoenix — Kinney Materials Handling Equipment Co., 929 Grand Ave.

Calif., Fresno—All Bearing Sales & Service Co., 602 Fulton St. AD 7-7416

Calif., Los Angelez—Yaeger & Sons, 1512

E. Olympic Blvd. MA 7-3576

Calif., Redondo Beach—M. R. Simas, 412

Calle Mayor. OR 8-0168

Calif., San Diego—C. S. Goodale Co., 843

India Ave. BE 3-5410

Calif., San Francisco—Perin Company, Inc., 575 Howard St. GA 1-1827

Colo., Thornton—Equipment Engineering, 1400 Ruth Dr. AT 7-8255

Idaho, Idaho Falls—Idaho Falls Sheet Metal Works, 560 Broadway. JA 2-4345

Ore., Portland—F. E. Bennett Co., 426 N.W. Sixth Ave. CA 8-2321

Utah, Salt Lake City—Machinery Center, Inc., 1201 S. Sixth W. St. HU 4-7601

Wash., Seattle — Masterson's Equipment Supplies, Inc., 2720 Westlake, No. AT 2-10245

MAGNESIUM FABRICATORS, INC., Linwood, Mich.

Dockboards, Mobil loading docks and allied products, Magnesium, Aluminum and Steel.

Representatives
Calif., Oakland.—Green Penny Co., 2211 San
Pablo Ave.
Calif., San Francisco.—Warehouse Equipment, 471 Fulton St.
Colo., Denver—Landes, Zachary & Peterson Co., 275 Kalamath St.
Utah, Salt Lake City—Modern Equipment
Co., 52 W. Second St.

MANNING, MAXWELL & MOORE, INC., see SHAW-BOX CRANE & HOIST DIV.

MARION METAL PRODUCTS CO., Cheney Ave., Marion, Ohio

Dump bodies and hoists (motor truck), Elevating tailgate (truck).

tailgate (truck).

Representatives

Ariz., Phoneix—J. H. Holan Corp., 302 E. Pima St. AL 3-4153

Ariz., Tucson—Bogard GMC Co., 2626 So. Fourth Ave. Phone 3-5438

Calif., Fresno—Ruckstell California Sales

Co., 410 Broadway. Phone 6-4296

Calif., Los Angeles—Truck Bodles Co., 2865

E. 26th St. AN 2-2184

Calif., Oakland—Ruckstell California Sales

Co., 2985 Ford St. KE 3-2541

Colo., Denver—Woeber Auto Body & Mig.

Co., 4990 Jackson St. FL 5-2366

N. Mex., Albuquerque—Construction Machinery Co., 2601 Second St. Phone 4
1633

1633
Ore., Portland—Pacific Body Builders, Inc., 1812 N.E. Grand. TR 1128
Wash., Seattle—Washington Truck Equipment, 3626 Airport Way. RI 7-1088
Wash., Spokane—Alloy Mfg. Co., Route 1.

MARION POWER SHOVEL CO., 617 W. Center St., Marion, Ohio

Cranes (yard, truck, tractor), Shovels (dissel, electric, crawler-mounted).

Ariz., Phoenix—1017 No. 22nd Ave. AL 2-5371 Calif., So. San Francisco—326 Shaw Rd. PL 6-3155 Ore., Portland—2651 S.W. Sherwood Pl. CA 3-2221

Ore., Portland—2651 S.W. Sherwood Pl. CA 3-2221

Representatives

Ariz., Phoenix—Superior Equipment Co., Inc., 2402 So. 19th Ave. AL 3-2116

Ariz., Tucson — Superior Equipment Co., Inc., 2402 So. 19th Ave. AL 3-2116

Ariz., Tucson — Superior Equipment Co., Inc., 2901 So. Fourth Ave. MA 2-1139

Calif., Berkeley—Central Equipment Co., Inc., 1230 Sixth St. LA 6-5061

Calif., Hayward—Central Equipment Co., Inc., 148 Jackson St. LU 2-2344

Calif., Los Angeles—Le Roi Rix Machinery Co., Inc., 6403 E. Slauson Ave. RA 3-3181

Calif., Sacramento—Central Equipment Co., Inc., 2120 Blumenfeld Ave. WA 2-5961

Calif., Sacramento—Central Equipment Co., Inc., 2120 Blumenfeld Ave. WA 2-5961

Calif., San Francisco—Rix Co., Inc., 582

Sixth St. UN 1-5025

Colo., Denver — Western Machinery Co., 2400 W. Seventh Ave. TA 5-7151

Colo., Grand Junction—Western Machinery Co., P. O. Box 3148. Phone 172

Idaho, Boise—Sawtooth Co., 1115 Grove St. Phone 3-3603

Idaho, Idaho Falls—Sawtooth Co., P. O. Box 917. JA 3-0950

Idaho, Twin Falls—Sawtooth Co., P. O. Box 917. JA 3-0950

Idaho, Twin Falls—Sawtooth Co., P. O. Box 611. RE 3-8041

Mont., Billings — Miller Machinery Co., P. O. Box 2136. Phone 9-2309

Ort., Eugene—Western Equipment Co. of Portland, 2244 N. W. Savier St. CA 8-4128

Wash., Seattle — Star Machinery Co., 241

Lander St. MA 3-0760

MARLOW PUMPS DIV. OF BELL & GOSSETT CO., P. O. Box 200, Mid-

land Park, N. J. Pumps (liquid handling).

Representative
Distributors located in all major Western

MARSH STENCIL MACHINE CO., 707 E. B St., Belleville, III.

Stencil cutting machines (hand-operated, electric), Stencil supplies (fountain brushes, stencil inks, oiled stencil board), Electric Dial-Taper and Twin-Taper, Felt-point pens, Felt-tip markers, Inks and extra felt tips.

Calif., Los Angeles—F. J. Smith Sales Co., 458 So. Alameda St.
Calif., Los Angeles—L. A. Supply Co., 2261
So. Atlantic Blvd.
Calif., San Francisco—Patrick & Co., 560
Market St.

MARTIN BROS. CONTAINER & TIMBER PRODUCTS CORP., THE, 39 Blucher St., Toledo, Ohio

Wirebound shipping containers and wood boxes.

Calif., Salinas — P. O. Box 115, Alisal Branch. HA 2-7468 Calif., San Francisco—100 Bush St. SU 1-2263 Calif., Whittier—P. O. Box 509. OX 3-7745 Ore., Oakland—P. O. Box 598. Phone 2211

MARTIN-DECKER CORP., 3431 Cherry Ave., Long Beach 7, Calif. NE 6-2577

Industrial weighing, load measurement and record-

Representatives

Calif., Los Angeles — Hodson Scale Co., 5712\(\) E. Beverly Blvd.

Calif., Los Angeles — Hodson Scale Co., 5712\(\) E. Beverly Blvd.

Calif., Los Angeles — Host Specialties, Inc., 429 So. Western Ave. DU 8-2463

Calif., Oakland—Robert H. Griffin Co., 600 16th

Calif., San Francisco—T. R. Mantes Co., 236

Fremont St.

Colo., Denver — Joe Coursey Equip. Co., 1243 Walnut St.

Ore., Portland—Air-Mac, Inc., of Oregon, 1111 S. E. Grand Ave. BE 4-6524

Ore., Portland—Pacific Scale Co., 2201 S. E.

Powell Blvd.

Wash., Seattle — Industrial Products Co.,

Vash., Seattle — Industrial Products Co., 2911 First Ave. So.

MARVEL-SCHEBLER PRODUCTS DIV., see CENTURY GAS EQUIPMENT

MASSEY-FERGUSON INDUSTRIAL DIV., 1009 So. West St., Wichita 13N, Kan.

Cranes (yard truck, tractor) Loaders and unloaders (portable self-propelled, tail gate).

Calif., Stockton—314 So. Aurora. HO 8-4901 Colo., Denver—5000 Vasquez Blvd. AL 5-5493 Idaho, Pocatello—3115 Pole Line Rd. Phone 4656, 7 ore., Portland—8303 N. E. Killingsworth St. AT 8-5751

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Regional Manager
Calif., Los Angeles—John Vilven, 2545 So.
Yates Ave. RA 3-0151

MATHEWS CONVEYER CO., WEST COAST, 901 County Rd., San Carlos, Calif.

Balting (conveyor), Conveyors (apron, automatic, bag and bale, belts, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, overhead, pallet, portable, skate, slat, trolley, vartical, special), Elevators (barrel, package), Pallet loaders, Rollers (conveyor), Tables (conveyor), rables (conveyor).

Calif., Los Angeles—5527 Sunset Blvd. HO 9-1673

Colo., Denver—Hack Engineering Co., 124
Wazee Market. TA 5-5248
Ore., Fortland — A. A. Schuler Co., 1128
S. W. Market St. CA 3-7901
Utah, Salt Lake City — Industrial Supply
Co., 131 Social Hall Ave. EM 3-6727
Wash., Seattle — H. W. Wylle Co., 2615
Western Ave. SE 6177

MAY-FRAN ENGINEERING, 1730 Clarkstone Road, Cleveland 12, Ohio Conveyors, Scrap and chip handling conveyors and automatic systems, Portable hinged steel or fabric belt conveyors and standard component

McCLINTOCK MFG. CO., 802 W. Whittier Blvd., Whittier, Calif.

Small parts handling equipment. Stock trucks, Rocks, Carts, Shelving, Containers, Wire baskets for degressing and cleaning. All completely integrated.

Calif., San Francisco—1485 Bayshore Blvd. JU 6-5266

McDERMOTT & GREENE, 3429 E. Olympic Blvd., Los Angeles 23, Calif.

Platform trucks, Stock carts, Hand trucks, Special and standard warehouse trucks, Benches, Industrial tables

McINTYRE, B. W., & CO., 7031 Darby Ave., Receda, Calif.

Plastic film packaging and forming, Factory and warehouse trucks.

Representatives
Calif., Pasadena—B. F. Wagner & Co.
Calif., Venice—Westwood Cermic Supply

MECHANICAL HANDLING SYSTEMS, INC., 4600 Nancy Ave., Detroit

Conveyors (apron, automatic, bag and bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, overhead, pallet, portable, screw, skate, slat, trolley, vertical, special and other), Elevators (barrel, package, belt, bucket, continuous flow), Racks (pallet, storage, other), Wheels (conveyor).

Calif., Los Angeles — Amercon Corp., 900
No. Alvarado. DU 5-3631
Wash., Seattle — Hallidie Machinery Co.,
Inc., 210 Hudson St. LA 9520

MEFCO SALES & SERVICE, INC., 131 No. Fifth Ave., Arcadia, Calif. Cranes (control), Hoists (controls), Scales (crane).

Calif., San Francisco—Carpenter Rigging & Supply Co., 453 Bryant St. YU 6-4838 Wash., Seattle—Elock Sales Co., 14317 23rd N. E. WA 2018; GI 4155

MERCURY MFG. CO., 4700 W. Division St., Chicago 51, III.

Industrial trucks, Tractors, Trailers.

Calif., San Francisco—593 Market St. GA 1-7294

Ariz., Phoenix—Southwest Equipment Co., 2242 E. Washington St. Calif., Bakersfield—Inland Equipment Co., P. O. Box 1303 Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza St. Calif., San Diego—Kenton Equipment Co., 1895 Main St. Calif., So. San Francisco — Hamerslag Equipment Co., 110 Freeway Blvd. Ore., Portland—Lift Trucks Parts & Service, Inc., 736 N. E. Broadway Utah, Salt Lake City—Heiner Equipment & Supply Co., 501 W. Seventh St. Wash., Spokane — Andrews Equipment Service of Washington, Inc., E. 4620 Trent Ave.

Service of Trent Ave.

MERRILL BROTHERS, 56-09 Arnold Ave., Maspeth 78, N. Y.

Plate lifting clamps, Barrel lifters, Dumpers, Drum opening tools, Box tongs.

Representatives

Calif., Los Angeles — Cable Distributors, Inc., 4903 E. Washington Blvd.
Calif., San Francisco—Gilmore Supply Co., 821 Folsom St.
Ore., Portland — Woodburg Co., 5851 No. Lagoon, Swan Island
Wash., Seattle — Stack Steel Supply Co., 500 Lauder St.

METZGAR CONVEYOR CO., 412 Douglas St., N. W., Grand Rapids

Conveyors (apron, bag, bale, belt, chain or link, gravity roller, live roller, portable, skate, nylon wheel, midget wheel and roller, nylon bearing roller).

relier).

Representatives

Calif., Los Angeles—Shipping Room Supply
Co., 1547 Estudillo Ave. AN 1-2194
Calif., Oakland—Ed. M. Vallejo Co., 3907
Lyon Ave. KE 2-4564
Calif., San Diego—General Industrial Supply Co., 1115 "F" St.
Ore., Portland—F. E. Bennett Co., 426 N.W.
Sixth St. AT 2321
Wash., Seattle—Materials Handling Equipment Co., 2663 First St. SE 0997
Wash., Spokane—Standard Cycle & Supply, 1811 E. Sprague Ave. LA 1321

M-H STANDARD CORP., 517 Commonipaw Ave., Jersey City 4, N. J. Conveyors (belt, rotating cable, slat), Racks (live storage for cartons or pallets), Order picking systems.

Representatives
Calif., San Francisco—Western Industrial
Equipment Co., 420 Market
Calif., South Gate — American Crane &
Hoist, 8660 Atlantic Ave.
Colo., Denver—King & East Machinery Co.,
2390 So. Delaware St.
Ore., Portland—Charles Ind. Sales Co.,
5201 S. First Ave.

MICRON, INC., Box 117, Bettendorf,

Trucks (dolly). Negresentatives
Ariz., Phoenix.—Vetcoa Supply Corp., 710
So. 35th Ave.
Calif., Los Angeles.—M. E. Canfield Co.,
419 E. Third St.
Calif. Los Angeles.—Colson Equipment &
Supply, 1317 Willow St.
Calif. Los Angeles.—Irving G. King & Co.,
831 Mateo St.
Calif. Los Angeles.—Utilities Supply Co.,
2852 Maple Ave.
Calif. Los Angeles.—Yeager & Sons, 1512
E. Olympic Blvd.
Calif. San Diego.—Myers Equipment Co.,
1025 11th 1025 11th
Colo., Denver — Murray Sales Co., Wazee
Market
Utah, Salt Lake City—Salt Lake Hardware
Co., P. O. Box 510
Wash., Seattle—Air-Mac, Inc., 3\$38 Fourth

MID-STATES GUMMED PAPER DIV., MINNESOTA MINING & MFG. CO., 6850 So. Harlem Ave., Bedford Park, Argo P. O., III.

Tape (gummed, sealing, filament, reinforced).

Calif., Los Angeles—6023 So. Garfield Ave. RA 3-6641

RA 3-6641

Calif., Beverly Hills—Noland Paper Co., Inc., 9268 W. Third St.
Calif., Glendale—Yates Products, 703 W. Ivy St.
Calif., Highland—Richmond Paper Co., Pacific and Church Sts.
Calif., Huntington Park—Package Engineering Co., 5516 Pacific Blvd.
Calif., Los Angeles 38—Anderson-Winn Paper Co., 1037 No. Orange Dr.
Calif., Los Angeles—Atlas Box Co., 1334 E. 16th St.
Calif., Los Angeles 44—Cal-State Distribuper Co., 1037 No. Orange Dr.
Calif., Los Angeles—Atias Box Co., 1334
E. 16th St.
Calif., Los Angeles 44—Cal-State Distributors, 646 W. Florence Ave.
Calif., Los Angeles 58—Carpenter Paper Co., 3100 E. 44th St.
Calif., Los Angeles 21—L. C. Hyman Paper Co., 1855 Industrial St.
Calif., Los Angeles 21—L. C. Hyman Paper Co., 1855 Industrial St.
Calif., Los Angeles 22—L. A. Supply Co., 2111 So. Atlantic Blvd.
Calif., Los Angeles 22—L. A. Supply Co., 2111 So. Atlantic Blvd.
Calif., Los Angeles 35—Yarborough Sales Co., 1133 So. La Cienega Blvd.
Calif., Coakland 7—Union Paper Co., 373 Fourth St.
Calif., Pomona—Carr Paper Co., 1190 So. Carey Ave.
Calif., Rosemead—San Gabriel Valley Supply Co., 9736 E. Valley Blvd.
Calif., San Diego 12—San Diego Paper Co., 1ndia at F St.
Calif., San Francisco 5—Carpenter Paper Co., 301 Folsom St.
Calif., San Francisco—Paul Kass Supply Co., 990 Folsom St.
Calif., San Francisco—Paul Kass Supply Co., 990 Folsom St.
Calif., Visalia—Caskey Paper Co., 15124
Oxnard St.
Calif., Visalia—Caskey Paper Co., P. O. Box 147
Ore., Portland 9—Carter, Rice & Co. of Oregon, 735 N. W. 16th St.
Wash., Spokane—Spokane Paper & Stationery Co., 152 So. Jefferson Ave.

MID-WEST WIRE PRODUCTS CO., INC., 2555 Fenkell Ave. at Linwood, Detroit 38, Mich.

Baskets (wire material handling "Carryers" and misc, too bins), Material handling baskets ("Carryers" and tote bins).

Representatives

Calif., Los Angeles 57—Equipment Engineering Services, 672 So. Lafayette Park
Pl. Du 7-8821

Colo., Denver 9—C.F.L. Co., 375 So. Pearl Colo., Denver 9—C.F.L. Co., 313 Sc. 2289 St. SP 7-4381 Colo., Denver 10—Urban M. Lodge, 2689 So. Jackson St. AL 5-6127

MILWAUKEE TRUCK CO., 250 No. 12th St., Milwaukee 3, Wis.

Trucks (dolly, factory and warehouse, hand).

Representatives

Representatives
Calif., San Francisco 22—Phil Payton, 1790
34th St. MO 4-5066
Calif., Santa Fe Springs—James Boal, 11725
Clarkman Ave. TO 3-0960
Hawaii, Honolulu—Alexander Assoc., 1272A, So. King St.
Utah, Salt Lake City—J. H. Nicodemus,
230 So. 4th St. EM 3-5587
Ore., Portland—Beaver Sales Co., 134 S.E.
Taylor St. BE 2-3107

MINNESOTA MINING & MFG. CO., see MID-STATES GUMMED PAPER DIV

MITCHELL INDUSTRIAL TIRE CO., INC., 1400 E. 40th St. (P. O. Box 468), Chattanooga, Tenn. Tires, laminated (industrial truck and trailer).

Representative

Calif., Gardena-Mitco Ind. Tire Co., 13204 Crenshaw Blvd. FA 1-0740

MOFFETT ENGINEERING - NOBLE CO.

MOFFETT ENGINEERING CO., 579 Cleveland Ave., Albany 6, Calit. LA 5-4916

Cranes (charging and drawing, gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power travelling over-head, I beam overhead).

Calif., Albany—579 Cleveland Ave. LA 5-4916

Representative alif., Pasadena — Engineered Process Equipment Co., 774 E. Green St. RY 1-6683 Calif...

MONARCH RUBBER CO., 50 Lincoln Park, Hartville, Ohio

Ariz., Phoenix—Naumann Lift Trucks, Inc., 2308 So. 11th Ave.
Calif., Fresno—Graylift, Inc., 1905 Mary St.
Calif., Los Angeles—Robert H. Braun Co., 5519 Jilson
Calif., Modesto — Lift Truck Service & Rental, 319 Grand
Calif., Sacramento—J. R. Rolfe Co., 3200
"J" St.

See advertisement on page 75

Calif., San Diego—Robert H. Braun Co., 2208 Imperial Calif., San Jose—Harold Johnson, 211 No. Montgomery Ore., Portland—Robert Dodd Co., 5210 S.W. Ore., Portland—Hobert Dodd Co., 5210 S.W. Corbett Utah, Salt Lake City—Foulger Equipment Co., 1361 So. Second W. Wash., Seattle—Liftco, Inc., 1921 Minor Ave.
Wash., Spokane—Liftco, Inc., E. 4324 Trent Wash., Yakima—Preston Faller Co., 108 So. Fourth Ave.

MORRIS, STANLEY E., CO., 5584 Alhambra Ave., Los Angeles 32, Calif.

Casters, Chains, Cranes (gantry, hand power, jib, pillar, swing), Grabs, Grapples, Hoists (chain, crane, electric, hand, portable, traveling), Trolleys, Trucks (die handling, dolly, elevating or lifting, factory and warehouse, hand-electric lift, sheet handling).

Representative
Calif., San Diego — S. W. Bowser, 3075

MORSE CHAIN CO., So. Aurora St., Ithaca, N. Y.

Power transmission products.

Calif., Los Angeles—607 So. Hill St. MA 2-0262 Colo., Denver — 1408 W. Colfax Ave. AL 5-8609

Representatives

Ariz., Phoenix — Edward D. Maltby Co., Inc., 424 W. Jefferson St. AL 4-9227

Calif., Long Beach—Edward D. Maltby Co., Inc., 2041 W. Anaheim. HE 7-4541

Calif., Los Angeles—Edward D. Maltby Co., Inc., 1940 S. Figueroa RI 7-9191

Calif., Los Angeles—J. W. Minder Chain & Gear Co., 6011 So. Central Ave. AD 2-7221 7221
Calif., Maywood—Edward D. Maltby Co., Inc., 4035 E. 52nd St. LO 2-5304
Calif., San Diego—Edward D. Maltby Co., Inc., 745 15th St. BE 3-7278
Calif., San Francisco—Adam-Hill Co., Utah Ave. & Corey Way. PL 5-3935; JU 8-8755
Ore., Portland—J. W. Minder Chain & Gear Co., 307 S. E. Hawthorne Blvd. BE 6-1131
Ore., Portland—Power Transmission Prod-Ore., Portland—Power Transmission Products, 1107 N. W. 14th Ave. CA 7-1271

MOTOROLA COMMUNICATIONS & ELECTRONICS, INC., 4501 Augusta Blvd., Chicago 51, III.

Two-way portable and mobile radio equipment, Selective calling paging equipment.

Burlingame—1616 Rollins Rd. OX Calif., Burlingame—1616 Rollins Rd. OX 7-3600 Calif., Los Angeles—6555 Sunset Blvd. HO 2-1378 Ore., Portland-3833 N. E. Union. AT 8-5428

Utah, Salt Lake City—467 E. Third So. DA 2-5615 Wash., Bellevue—201 J. S. Ditty Bldg. GL 4-3322

MOTO-TRUC CO., THE, 1953 E. 59th St., Cleveland 3, Ohio

Complete line of battery-powered walkie and small riding type high-lift and low-lift industrial trucks and tractors.

Calif., Los Angeles—Glenn A. Harshbarger
Co., 588 Mateo St. MI 7491
Calif., San Francisco—Elder & Co., 333
Seventh St. UN 1-5480
Colo., Denver—Landes, Zachary Peterson
Co., 275 Kalamath. MA 3-6203
Ore., Portland — Oregon Handling Equipment Co., 2949 N. W. St. Helens. CA 8Wash. Seattle, Machania 738h., Seattle—Mechanical Handling Co., 1401 W. Garfield. GA 0200

MULTISTAMP CO., 527 W. 21st St., Norfolk 7, Va.

Stencil duplicators, Tag and label printers, Carton and box markers.

and box markers.

Representatives

Ariz., Phoenix—P.B.S.W. Supply & Equip. Co., 530 W. Washington St. Calif., Los Angeles—O. I. Mattenson, 903 So. Grand Ave. VA 9466

Colo., Denver—Sachs-Lawlor Co., 1543 Larimer St. AL 5-3422

Ore., Portland—Kilham Stationery & Printing Co., 134 N. W. Eighth Ave.

Utah, Salt Lake City — Mid-West Office Supply, 60 W. Second St. So. EM 4-3527

Wash., Seattle—Puget Sound Stamp Works, 120 Marion St. EL 4566

Wash., Seattle—Seattle Rubber Stamp Co., 912 Third Ave. MA 8420

NALPAK CORP., 1130 E. Florence Ave., Los Angeles 1, Calif.

Two-wheel hand trucks, Four-wheel platform trucks and dollies, Wheels (pneumatic and semi-pneumatic).

San Francisco-336 Sixth St. UN 3-7373

Representatives
Ariz., Phoenix—Luna Corp., 447 W. Jeffer-Ariz., Phoenix—Luna Corp., 447 W. Jefferson
Calif., Alhambra—Geo. M. Prescott Co., 825
So. Fremont. FA 1-2100
Calif., Los Angeles—M. E. Canfield Co., 419
E. Third St. MA 6806
Calif., Los Angeles—Yaeger & Sons, 1512 E.
Olympic Bivd. TR 3576
Calif., San Diego—Gould Hardware & Machinery Co., 2212 Main St.
Calif., San Diego—Winn Supply Co., 1676
Main St. BE 3-3106
Nev., Las Vegas—Vegas Materials Co., 1025
So. Main St.

NASHUA CORP., 44 Franklin St., Nashua, N. H.

Gummed tape dispensers (electric and manual), Gummed sealing tape (plain, printed, glass reinforced)

Ariz., Phoenix—M. Markovitz, 523 E. Osborn Rd. AM 5-3451
Calif., Los Angeles—1709 W. Eighth St. HU 3-7780
Calif., Menlo Park—C. S. Graves, 7 Coleman Pl. DA 6-6321
Calif., Sacramento—K. D. Lucas, 3420 Barrington Rd. IV 3-0172
Calif., San Diego—L. Hayden, 3931 Fourth Ave. CY 8-7624
Calif., San Francisco—J. N. Brigham, 1355
Market St. UN 1-0720
Ore., Portland—B. E. Chinn, 411 Weatherly Bidg. BE 4-2372
Utah, Salt Lake City—W. W. Bengtzen, 3568 So. 2500 E. HU 7-7270
Wash., Seattle—M. J. Malmstrom, Suite 101, Jones Bldg. MA 4-6860

NATIONAL PNEUMATIC CO., INC., 125 Armory St., Boston 19, Mass.

Calif., Los Angeles—Paul Goen, 1341 So. Hope St.
Calif., San Francisco — Dom Politeo, 547
Howard St. Ore., Portland—Harry M. Euler Co., 2811 N. E. Glisan St.

NATIONAL VULCANIZED FIBRE CO., Box 311, Wilmington 99, Del.

Kennett materials handling receptacles of vulcanized fibre.

Branch Offices
Calif., Los Angeles—2216 So. Garfield. RA 3-3129 Calif., Palo Alto—535 Middlefield Rd. DA 6-4667

Colo., Denver — George Hamburger, 1253 Pearl St.

Wash., Seattle — John J. Witherow, 4001

Whitman Ave. ME 7298

NEVILLE, AMES HARRIS, CO., 2800 17th St., San Francisco 10, Calif.

Bags (burlep, canvas, multi-wall, shipping, open mesh).

Calif., Glendale—\$454 San Fernando Rd. CH 5-6581
Idaho, Idaho Falls—Airport Way & Burgess, JA 2-6352
Idaho, Twin Falls—240 Sourth Ave. So. RE 3-1011 Ore., Portland—1506 N. W. Hoyt St. CA 6-2701 Utah, Salt Lake City—P. O. Box 2256. DA 2-0416

NEW LONDON ENGINEERING CO., 1700 Division St., New London, Wis.

Conveyors (automatic bag and bale, belt, chain or link).

Conveyors (automatic bag and bale, belt, chain or link).

Representatives

Ariz., Phoenix—Lee Redman Equipment Co., 610 So. 19th St.
Ariz., Phoenix — O. S. Stapley Co., 723 Grand Ave.

Ariz., Phoenix — Western Machinery Co., 124 E. Buchanan St.
Calif., Los Angeles—Irving G. King & Co., 821 Mateo St. TU 3176
Calif., Oakland — Ricker Machinery, 302 Fourth St. TW 3-3680
Calif., Sacramento — Central Equipment Co., 2120 Blumenfeld Ave.
Calif., Sacramento — Central Equipment Co., 2120 Blumenfeld Ave.
Calif., Sacramento — Western Machinery Co., 1004 Speer Blvd.
Colo., Grand Junction—S & M Supply Co., 735 Fourth Ave.
Idaho, Boise—Western Equipment Co.
Nev., Las Vegas—Inland Service & Supply Ore., Portland—Oregon Handling Equipment, 2949 N.W. St. Helens Rd. CA 8-4196
Ore., Portland—Temco Co., 1225 S. W. Morrison. CA 8-8508
Utah, Salt Lake City—Lund Machinery Co., P. O. Box 1948 EM 3-8828
Utah, Salt Lake City—Lund Machinery Co., P. O. Box 1948 EM 3-8828
Utah, Salt Lake City—Lund Machinery Co., 22 W. Second So. St.
Wash., Spokane—Temco Co., 1331 Third Ave. MU 9165
Wash., Spokane—Temco Co., So. 125 Steweens St. MA 4-5288

Wash, Spokane—Temco Co., So. 125 Stevens St. MA 4-5288
Wash., Seattle—Glenn Carrington & Co., 91 Columbia St.

NEW YORK AIR BRAKE CO., see KINNEY MANUFACTURING DIV.

NICHOLS CONVEYOR & ENGINEER-ING CO., INC., 2646 Downey Rd., Los Angeles 23, Calif. AN 3-3809 and AN 3-7874

Hydraulic baling equip. for cardboard, paper, rags, plastic scrap, non-ferrous metals.

NOBLE CO., 1860 Seventh St., Oakland 20, Calif.

Stationery, semi-portable and mobile cement and aggregate batching plants, Bulk cement plants, Concrete mixing plants, Aggregate convayors and elevators, Underhung traveling cranes, Automatic plate handlers.

El Segundo—218 Richmond St. OR Wash., Seattle-518 First Ave. AT 4-4878

Representatives
Ariz., Phoenix — Western Machinery Co., 820 No. 17th Ave. AL 8-8531
Calif., Fresno—Edward R. Bacon Co., 2496
So. Railroad Ave. AM 8-6677

NORTHWEST ENGINEERING — PACIFIC PUMPING

Calif. Los Angeles — Smith-Booth-Usher, 2001 So. Santa Fe Ave. TR 6911
Calif., Sacramento—Edward R. Bacon Co., 211 No. Seventh St. GI 2-1008
Calif., San Francisco—Edward R. Bacon Co., 2101 Folsom St. HE 1-3700
Colo. Denver — Western Machinery Co., 2400 W. Seventh Ave. TA 5-7151
Idaho, Boise—Arnold Machinery Co., Inc., 5024 Gage St. Phone 2-1174
Idaho, Idaho Falls — Arnold Machinery Inc., 1265 W. Broadway. JA 3-0822
Mont., Billings—Seitz Machinery Co., Inc., 420 North St. Phone 2-2103
Mont., Great Falls—Seitz Machinery Co., Inc., 1107 Smelter Ave. Phone 2-6996
N. Mex., Albuquerque—Contractors' Equipment & Supply Co., 707 Broadway N. E. CH 3-3565
Ore., Portland—Clyde Equipment Co., 1631
N. W. Thurman St. CA 7-5561
Tex., El Paso (serves southern portion of N. Mex.)—Border Machinery Co., 1710 E. Paisano Dr. Phone 3-7564
Utah, Salt Lake City—Arnold Machinery Co., Inc., 433 West Second So. DA 2-5631
Wash., Seattle—Star Machinery, 241 Lander St. EL 0760
Wash., Spokane—Western Machinery Co., No. 806 Division St. FA 8-3240
Wyo., Casper—Studer Tractor & Equipment, P. O. Box, 779. Phone 2-5382

NORTHWEST ENGINEERING CO., 135 So. LaSalle St., Chicago 3, Ill. Cranes (truck and tractor yard).

Calif., San Francisco-255 10th St. HE 1-5060 alif., Vernon—3707 Santa Fe Ave. LU 7-Wash., Seattle-1234 Sixth Ave., So. MA 4-

Representatives

Representatives

Alaska, Anchorage — Bashaw Equipment Co., P. O. Box 1999
Calif., Eureka — Brizard-Mathews Machinery Co.
Calif., San Diego—Southern Equip. & Supply Co., 2025 E. Harbor
Calif., San Diego—Southern Equip. & Supply Co., 1527 Sacramento
Colo., Denver—Power Equipment Co., 3440
Brighton Blvd.
Idaho, Idaho Falls — Arnold Machinery Co., Inc., 1625 W. Broadway
Mont., Billings—Industrial Equipment Co., 415 No. 27th St.
Mont., Great Falls — Normont Equipment Co., 1157 Smelter Ave.
Nev., Reno—Sierra Machinery Co., Inc., 307
Morrill Ave.
N. Mex., Albuquerque—Lively Equipment Co., 2601 Fourth St., N. W.
Ore., Medford — Cal-Ore Machinery Co., Inc., 944 So. Central Ave.
Ore., Portland—Balzer Machinery Co., 2136 S. E. Eighth Ave.
Utah, Salt Lake City—Arnold Machinery Co., Inc., 433 W. Second So.
Wash., Spokane—General Machinery Co., E. 3500 Riverside Ave.
Wash., Wenatchee — Mid-State Truck & Machinery Co., 313 No. Mission St.
Wyo., Casper—Moss Equip. & Supply Co., 3100 E. Yellowstone.

NUTTING TRUCK & CASTER CO., 1201 W. Division St., Faribault, Minn.

Carts (hand, push), Casters, Trailers (factory and warehouse), Trucks (bag, barrel, drum, box type, die handling, delty, factory and warehouse, hand, handling, tow line, paper roll, sheet handling, skid), Wheels (hand truck, rubber tired, trailer).

Ariz., Phoenix—Kinney Materials Handling Equipment, Inc., 929 Grand Ave. AL 8-2778 2778

Ariz., Tucson—Kinney Materials Handling Equipment, Inc., 2625 No. First Ave. MA 4-6233

Calif., Los Angeles—H. Stewart & Associates, 1547 Estudillo Ave. AN 1-2194

Calif., Oakland—E. C. Buehrer Associates, 253 Fourth St. TE 6-2082

Ore., Portland—F. E. Bennett Co., 426 N.W. Sixth Ave. CA 8-2321

Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl. Phone 3-9074

Wash., Seattle—Secord Sales Co., 95 Connecticut St. MA 0737

Wash., Spokane—H. H. McVeigh, W. 310

First Ave. RI 5927

R

OBERDORFER FOUNDRIES, INC., Thompson Rd., Syracuse, N. Y.

Bronze rotary gear, Centrifugal and rubber impel-

Representatives
(Contact factory for name of nearest dis-

O'DONNELL, P. F., CO., 2298 Jerrold Ave., San Francisco 24, Calif. Automatic coders and conveyor line markers for marking shipping cartons, Products, etc.

OHIO ELECTRICAL MFG. CO., see HOMER MFG. DIV.

OLIVER CORP., 400 W. Madison St., Chicago, III.

Cranes (yard, truck tractor), Rollers (conveyor), Tractors (diesel, gasoline warehouse), Trucks (diesel fork, gasoline fork).

Branches
Calif., Oakland—1066 47th Ave. KE 2-2511
Ore., Portland—130 S. E. Morrison St. BE
2-5124

2-5124

Representatives

Alaska, Anchorage — Bashaw Equipment
Co., P. O. Box 1999

Calif., Bakersfield—Motor Truck Sales &
Service, P. O. Box 672

Calif., Blythe — Muson Equipment, P. O.
Box 128

Calif., Eureka—Rogers Machinery Co., 3428
Jacobs Ave.

Calif., Eureka—Rogers Machinery Co., 3428
Jacobs Ave.
Calif., Lancaster — Robertson Implement
Co., 340 East Ave.
Calif., Os Angeles—Irving G. King & Co.,
821 Mateo St.
Calif., Porterville — Farmers Tractor &
Equipment Co., 1475 So. Main St.
Calif., Napa — Ritz Equipment Co., 2032
Napa-Vallejo Hwy.
Calif., San Diego—Keaton Equipment Co.,
1895 Main St.
Calif., San Jose—MFD Distributors, Inc.,
1650 So. First St.
Calif., San Leandro—MFD, Inc., P. O. Box
3205

Calif., San Leanard 3205 Calif., Stockton—H & M Tractor Co., P. O. Box 2167 Calif., Tustin—Schneider Tractor Co., 610

Calif., Stockton—H & M Tractor Co., P. O. Box 2167
Calif., Tustin—Schneider Tractor Co., 610
W. First St.
Idaho, Boise — Engineering Sales Service, Idaho, Boise — Engineering Sales Service, Inc., P. O. Box 2769
Mont., Billings—Caird Engineering Works, 4005
W. Montana Ave.
Mont., Helena—Caird Engineering Works, P. O. Box 837
Ore., Albany — Herrold & Jensen Implement Co., P. O. Box 321
Ore., Corvallis — Herrold & Jensen Implement Co., P. O. Box 321
Ore., Portland—F. E. Bennett Co., 626 N.W. 6th Ave.
Ore., Portland—Oregon Tractor & Equipment Co., 7606 N. E. Union St.
Ore., Roseburg — Paul Casey Equipment Co., 7606 N. E. Union St.
Ore., Salem—A. C. Haag & Co., Box 1777
Utah, Salt Lake City—Arnold Machinery Co., P. O. Box 2220
Wash., Chehalis — Buck & Sons Farm Equipment Co., 2155 Market St.
Wash., Seattle—Fray Equipment Co., Inc., 520 First Ave., So.
Wash., Seattle—Fray Equipment Co., Inc., 5821 First Ave., So.
Wash., Walla Walla—Melcher-Ray Machinery Co., 1014 So. Ninth St.

OLIVER CORP. see also A. B. FAR-QUHAR DIV.

ORCHARD PAPER CO., 3914 No. Union Blvd., St. Louis 15, Mo. VPI, Silver Saver, Alumitex, Coppertex, Ferrotex.

Calif., Los Angeles — 6866 E. Washington. Calif., San Francisco — 24 California. EX 2-3833 Portland-2326 N. E. 23rd Ave. AT

PACIFIC CAR & FOUNDRY CO., Fourth and Factory, Renton, Wash. AL 5-4511

Carts (log), Cranes (tractor, booms), Hoists (tractor, drum), Winches (tractor), Rigging.

(Distributed through Allis-Chalmers, International, Oliver Crawler, John Deere, Terratrac, Euclid, Eimco and other dealers.)

PACIFIC COAST ENGINEERING CO., Oak & Clement St., Alameda, Calif. Cranes (bridge, gantry), Hoists (hydro gate).

Branch Calif., Torrance — 1404 Cravens Ave. FA 0-0341

PACIFIC COAST INDUSTRIAL EQUIP-MENT CORP., P. O. Box 36008, Los Angeles 36, Calif. WE 8-6201

Engineers, fabricators and erectors of metal finishing and processing equipment. Western agents for Acme standardized wire mesh partitions, Northern Engineering Works hoists and crames, Gray hub grease seal trolley wheels.

PACIFIC MERCURY MFG. CORP., 13th & Maiden Lane, Joplin, Mo. Emergency and stand-by electric power plants for materials handling applications.

Emergency and stand-by electric power plants for materials handling applications.

Representatives
Calif., Alhambra—J & R Engine & Supply Co., 1819 W. Valley Blvd. CU 3-1591
Calif., Bishop—Joe's Garage, 156 E. Willow Calif., Burlingame — Industrial Inspection & Supply Co., 856 Burlway Rd.
Calif., Burlingame — Industrial Inspection & Supply Co., 856 Burlway Rd.
Calif., Chico—A. J. Boradori, 287 Humboldt Ave. FI 2-2873
Calif., Eureka—Eureka Boiler Works, Foot of S St. HI 3-1681
Calif., Fresno — Contractors Equipment & Supply Co., 143 C St. AD 7-1153
Calif., Inglewood — C. P. Concrete Equipment Co., Inc., 628 So. Isis Ave. OR 8-2587
Calif., Kingsburg—Olsen Brothers Mfg. Co., 1530 Marion St. Phone 2234
Calif., Long Beach — Gaines Electric Supply Co., 1648 E. Anaheim St. NE 6-1260
Calif., Long Beach—Star Equipment Co., 651 Orange Ave. GA 2-9676
Calif., Los Angeles—Albro Fire Equipment Co., 528 Ceres Ave. MA 6-1363
Calif., Los Angeles—Electric Tool & Supply, 300 Santa Fe Ave. LU 1-8151
Calif., Los Angeles—Electric Tool & Supply, 300 Santa Fe Ave. LU 1-8151
Calif., Los Angeles—Electric Co., 2640 Huron St. Ca 3-1146
Calif., Los Angeles—Sweinhart Equipment Sales, Inc., 2900 E. Olympic Blvd. AN
3-7456
Calif., Los Angeles—Western Tool Distributors, Inc., 441 So. Towne Ave. MA 4-8781

Sales, Inc., 2900 E. Olympic Bivd. AN 3-7456
Calif., Los Angeles—Western Tool Distributors, Inc., 441 So. Towne Ave. MA 4-8781
Calif., Los Banos—Bressler's Auto Electric, 720 Eye St.
Calif., Modesto — Stanislaus Implement & Hardware Co., 10th & F St. LA 3-0781
Calif., Monterey—Peninsula Saw Shop, 551
Del Monte Ave. FR 5-4244
Calif., Napa—Electro Flasher Co., 2087 Adrian St. BA 4-6831
Calif., Oakland — Dependable Machinery
Co., Inc., 1011 Harrison St. TE 2-1273
Calif., Oxnard—Maulhardt Equipment Co., 815 No. Oxnard—Maulhardt Equipment Co., 815 No. Oxnard—Maulhardt Equipment Co., 2000 Capitol Ave. GI 3-1909
Calif., Sacramento — Sacramento Machinery Co., 2000 Capitol Ave. GI 3-1909
Calif., San Diego — C. S. D. of San Diego
Spring & Brake Works, Inc., 5310 Mission Gorge Rd. AT 3-2368
Calif., San Francisco—Western Fire Equipment Co., 60 Main St. SU 1-0618
Calif., San Gabriel — F. Morton Pitt Co., 135 E. Las Tunas Dr. CU 3-5176
Calif., San Jose—Orchard Supply Co., 270
W. San Carlos. CY 2-6282
Calif., Santa Maria—Glen A. Roemer, 105
E. Mill St. WA 5-5166
Calif., Waterford — S & W Safe-T-Lite, Bentley & E Sts.
Colo., Denver — C & C Tire Supply Co., 201
Every Calif. Salad Salad

Bentley & E Sts.

Colo., Denver — C & C Tire Supply Co.,

801 Broadway. CH 5431

Nev., Las Vegas—Inland Service & Supply

Corp., 1600 Industrial Blvd. DU 4-1600

Nev., Reno—Nevada Fire Extinguisher Service, 2600 Plumas

Addition Co. Inc.

Corp., 1800 Industrial Blvd. DU 4-1800 Nev., Reno—Nevada Fire Extinguisher Ser-vice, 2800 Plumas Ore., Eugene—George A. Halton Co., Inc., 209 W. Eighth St. Ore., Portland — Western Fire Equipment Co., 539 N. W. Tenth Ave. Utah, Salt Lake City—Rasmussen Equip-ment & Supply, 1960 So. Second W. HU 5-5-548

PACIFIC PUMPING CO., 9201 San Leandro St., Oakland 3, Calif.

PACIFIC PUMPS, INC. — PORTLAND CHAIN

Pemps (centrifugal, end suction and split case, tur-bine type, non-clog, contractors' self-priming, sump and sewage, submersible, boiler feed and condensate return).

Calif., Los Angeles—1020 So. Atlantic Blvd. AN 8-3361 Colo., Denver—P. O. Box 119. AC 2-3330 Ore., Portland—526 N. W. Broadway. CA 8-2121

Wash., Spokane—10510 E. 20th Ave. WA 6-7401

PACIFIC PUMPS, INC., 5715 Bickett St., Huntington Park, Calif. LU 8-2203

Contrifugal process pumps for refinery and process industries. Contrifugal boiler feed pumps for steem generation, Plunger pumps for oil wells, Turbo-pumps for marine and general industry.

Calif., San Francisco—593 Market St. GR 1-4956

1-4956

Representatives

Ariz., Phoenix — Lee Redman Equipment
Co., 610 So. 19th Ave. AL 8-3794

Colo., Denver—G. M. Wallace & Co., Denham Bidg. AM 6-0386

Ore., Portland — E. S. Constant Co., 1814
S. E. 7th Ave. CA 8-6543

Utah, Sait Lake City—The Lang Co., 267
W. First So. St. DA 8-8341

Wash., Seattle—Arthur Forsythe Co., 2806

Fifteenth Ave. AL 5716

PACIFIC WIRE ROPE CO., 1840 E. 15th St., Los Angeles 21, Calif. RI 9-7511

Slings (wire rope), Wire rope and wire rope fittings. Branckes

Calif., Berkeley—607 Addison St. TH 5-6872 Ore., Portland—3615 N. W. St. Helens Rd. BE 3-3188

Representatives

Ariz., Phoenix—Superior Equipment Co.

Ariz., Phoenix — Tractor Parts & Supply

Ariz., Safford—Don Pace Ariz., Tucson—Bob Barrett Ariz., Yuma & Wellton—Braden Machin-ery Co.

See advertisement on page 135

Calif., Arcata—Munnell & Sherrill of Calif. Calif., Blythe—Hannen Machinery Co. Calif., El Cajon—KCY Tractor Co. Calif., Fort Bragg — Lilley's Building Sup-

plies Calif., Fortuna—Johnson Bros. Machine Shop Calif., Garberville — Armfield Machine

Shop Calif., Quincy—Feather River Auto Parts Calif., Redding—Paul Droscher Sales Calif., Santa Ana — Knox Industrial Sup-

Calif., Santa Cluz—Sweet Service Co.
Calif., Santa Cruz—Sweet Service Co.
Calif., Ukiah—Munnell & Sherrill of Calif.
Nev., Fallon — Bernie Spencer Industrial
Salas & Service

Nev., Fallon — Bernie Spencer Industrial Sales & Service Nev., Las Vegas—Blystone Equipment Co. of Nevada N. Mex., Albuquerque—C. E. Mitcham Co. N. Mex., Grants—Nellis Supply Co. N. Mex., Lordsburg—Southwest Supply Co. N. Mex., Roswell—Armstrong & Armstrong Ore., Coos Bay—Loggers Supply Co. Ore., Medford—Rogue Equipment Sales Co. Ore., Roseburg—Flury Supply Co. Ore., Sweet Home—Sherman Supply Co. Ore., Sweet Home—Sherman Supply Co. Utah, Salt Lake City—Holland Equipment Co.

Wash., Bellingham—Powder Sales & Equipment Co.

PAIGE CO., 114 E. 32nd St., New York 16, N. Y.

Tota boxes (Miracla tota, fold-flat, corrugated).

Calif., Los Angeles—Storage Rack Systems, 3659 Whittier Blvd. Calif., San Francisco—Enterprise Commer-cial, 20 Pacific St.

PAK-RAPID, INC., 18 Elizabeth St., W. Conshohocken, Pa.

Automatic packaging machines (continuous, semi-automatic, fully automatic, vacuum and gas in-jection).

Representatives
Calif., Los Angeles—Frank Shaw Co., 711
So. Vermont. DU 5-5591
Calif., San Francisco—Ralph E. Peters Co.,
420 Market St. SU 1-1379

PALTIER CORP., 1701 Kentucky St., Michigan City, Ind.

Dock boards, Racks (pallet, storage, portable), Trucks (aluminum).

Calif., Los Angeles—Colson Equipment & Supply Co., 1317 Willow St. MA 2-2422 Colo., Denver—L. G. Rathbun Co., 1414 16th St. TA 5-3762 Ore., Portland—Robert Dodd Co., 5210 S.W. Corbett Ave. CA 8-8603 Utah, Sait Lake City—Modern Equipment Co., 52 W. Second So. St. DA 2-5887 Wash., Seattle — Liftco, Inc., 1921 Minor Ave. MA 3-8690

PARAMOUNT MFG. CO., P. O. Box 1117, Stockton 1, Calif.

Poteto, carrot and onion packing shed equipment.

Calif., Shafter—558 E. Lerdo Hwy. PI 6-4062

Idaho, Idaho Falk—Pacific Diamond H Bag Co., P. O. Box 2104. JA 2-2151 Idaho, Twin Falk—Pacific Diamond H Bag Co., P. O. Box 1072. RE 3-3642 Ore., Nyssa—Pacific Diamond H Bag Co., P. O. Box 643. Phone 3010

PARKDALE CO., 3040 Rosslyn St., Los Angeles 65, Calif.

LP Gas equipment.

re., Portland—8989 S. E. McLaughlin Blvd. OL 4-0489

Calif., Lancaster—Clark Mfg. Co., 44079 No. Sierra Hwy. WH 8-3238
Calif., Los Angeles — Butane Car Service, 1206 E. Sixth St. MA 2-7771
Calif., Pomona — Suburban Gas Service, 2021 No. Towne Ave. NA 3-2121

PENCO DIV., ALAN WOOD STEEL CO., P. O. Box 212, Oaks, Pa.

Steel lockers, Steel storage shelving, Steel storage and wardrobe cabinets.

Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza St. AN 9-0567 Calif., So. San Francisco — Hamerslag Equip. Co., 110 Freeway Blvd. JU 6-1789 Wash., Seattle—F. T. Crowe & Co., Inc., 329 Second Ave. W. AT 4-8484

PENCO ENGINEERING CO., 701 Welch Rd., Palo Alto, Calif.

Dock Boards, Loading ramps

PETLEY, INC., 5424 E. Slauson Ave., Los Angeles 22, Calif. RA 3-3327 Benches, Bins, Boxes (tote), Lockers, Pallets, Racks (pallet, storage), Skids.

Calif., Oakland—899 73rd Ave. NE 2-7621

Representatives
Ariz., Phoenix—Labagh Equipment & Sales
Co., 904 E. Camelback Rd. AM 5-9809
Calif., Bakersfield — Bruce Sticklers, 1801
18th St. FA 4-6408
Calif., Fresno — Shelco Industries, 1931
Mariposa. AM 8-8444
Calif., San Diego—C. S. Goodale Co., 843
India St. BE 3-5410
Hawaii, Honolulu—Lewers & Cooke, Ltd.,
404 Piikoi Parkway. Phone 5-1961

PHILADELPHIA HOIST DIV., Doyle & No. Hamilton Sts., Doylestown, Pa.

Chains, Cranes (gantry, hand power, jib, pillar, swing, double beam overhead, electric and electric traveling overhead, I beam overhead, monerail overhead). Hoists (chain, crane, electric, hand, monorail, portable).

Calif., Long Beach — Hoisting Equipment Co., 665 W. 14th St. HE 5-5913

Calif., San Francisco — Robert M. Taylor Co., 268 Market St. YU 2-1761 Colo., Denver—Materials Handling Equip-ment Co., 1795 Sheridan St. BE 7-0433 Ore., Portland — McMahon Brothers, 921 S. W. Oak St. CA 8-6878 Wash., Seattle—F. T. Crowe Co., 329 Sec-ond Ave. W. AT 4-8484

PIONEER PALLET CO., INC., 1650 Middle Harbor Rd., Oakland 20, Calif.

Pallets, Pallet Bins, Skids, Crates, Pallet repair

Representative
Calif., Oakland — Roger P. Hayne, 3871
Piedmont Ave. OL 3-4124

PLYMOUTH LOCOMOTIVE WORKS, Div. of The Fate-Root-Heath Co., Plymouth, Ohio

Lecomotives, diesel and gaseline, 3 to 100 tens; Mine-O-Motives, diesel, 3 to 25 tens.

Calif., San Francisco—McCormick-Morgan
Co., 324 Fifth St. SU 1-6591
Colo., Denver — Toncray Equipment Co.,
1732 Blake St. CH 4-1102
Montana, Missoula—Miller Machinery Co.,
P. O. Box 1496. Phone 9-2309
Utah, Salt Lake City — Mine & Smelter
Supply, 121 West 2nd South St. EM
3-2791

POLLARD BROS. MFG. CO., 5504 N. W. Highway, Chicago 30, Ill. Hand trucks (two and four wheel), Work benches.

Representatives

Ariz., Phoenix—Pratt-Gilbert-Howe, P. O. Box 2230
Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza. AN 9-0567
Wash., Seattle—F. T. Crowe Co., 329 Second Ave. W.

POLYKEN SALES DIV., KENDALL CO., 309 W. Jackson Blvd., Chicago 6, 111.

Pressure sensitive tapes.

Calif., Los Angeles—5880 Hollywood Blvd. HO 2-8218

PORTER, H. K., 74 Foley St., Somerville 43, Mass.

Cutters (bolt, rod, wire, cable, hand and power-sparated).

Calif., San Francisco—24 California St. YU 2-3186 Colo., Denver—1126 12th St. Wash., Seattle—Third Ave. and Cherry St.

PORTER, H. K., also see QUAKER PIONEER RUBBER DIV., THERMOID DIV.

PORTCO CORP., PAPER & PLASTIC DIV., Vancouver, Wash. OX 4-1591 Custom engineered bags, covers and liners for Western industry and agriculture.

Calif., Los Angeles—2160 E. Seventh St. AN 3-8944 Calif., San Carlos—792 Laurel. LY 1-8715 Wash., Seattle—444 Dexter Horton Bldg. MA 2-5950

Blake, Moffit & Towne, Van Waters & Blake, Moffit & Towne, Van Waters & Rogers, and Zellerbach Paper Co. branches throughout the West.

PORTLAND CHAIN MFG. CO., 4000 N. W. Yeon, Portland 10, Ore.

Chains, Conveyors (apron, belt, chain or link, drag, flight, live roller, portable), Idlers (canveyer), Slings (chain).

Wash., Bellingham—Phone 442
Wash., Seattle — 653 Skinner Bldg. MA
4-1611

Wash., Seattle — 653 Skinner Bldg. MA
4-1611

Representatives

Ariz., Phoenix—Garrett Supply Co., 2950
W. Thomas Rd. AP 8-5511
Calif., Arcata—Munnell & Sherrill of California, P. O. Box 217
Calif., Arcata—Reliable Hardware Co., P. O. Box 695
Calif., Eureka—Fred E. Barnett Co., Broadway & Harris St.
Calif., North Sacramento—Fred E. Barnett
Co., 999 Arden Way
Calif., Redding—Gerlinger Steel & Supply
Co., P. O. Box 539
Calif., San Francisco—Fred E. Barnett Co., 1455 Custer Ave.
Calif. Ukiah—Fred E. Barnett Co., P. O. Box 548
Mont., Kalispell — Industrial Supply Co., 175 N. E. Railroad St. SK 6-5900
Ore., Eugene—American Steel & Supply, 44 Seventh Ave. E.
Ore., Medford—American Steel & Supply, P. O. Box 3285
Ore. Klamath Falls—Fred E. Barnett Co., 600 Spring St.
Ore., Kalmath Falls—Fred E. Barnett Co., 600 Spring St.
Ore., Calif. Ukiah—Fred E. Barnett Co., 600 Spring St.
Ore., Roseburg—Munnell & Sherrill, Inc., 1163 N. E. 63rd Ave.
Ore., Roseburg—Munnell & Sherrill, Inc., 1163 N. E. 63rd Ave.
Ore., Roseburg—Munnell & Sherrill, Inc., 1163 N. E. 63rd Ave.
Ore., Roseburg—Munnell & Logging Supply, 313 So. H St.
Wash., Aberdeen—Mill & Logging Supply, 313 So. H St.
Wash., Seattle — Washington Belting & Rubber Co., 2763 First Ave. So.
Wash., Spokane—Bitco, Inc., E. 4115 Trent Ave.
Wash., Tacoma—Washington Belting & Rubber Co., 2763 First Ave. So. Wash., Tacoma—Washington Belting & Rubber Co., 672 E. 11th St.

POWELL PRESSED STEEL CO., Erie St., Hubbard, Ohio

Nesteel pallets, Flowmatic boxes and stands, Invert-A-Bin bulk or semi-bulk container.

Representatives
Calif., Lynwood—J. W. Lafferty Co., 11371
So. Atlantic. NE 6-1828
Calif., San Francisco—Perin Co., Inc., 575
Howard St. GA 1-1827
Colo., Denver—Murray Sales Co., 16 Wazee
St. KE 4-5296
Ore., Portland—Air-Mac, Inc., 1111 S. E.
Grant Ave. BE 4-6524
Utah, Salt Lake City—Machinery Center,
Inc., 1201 So. Sixth St. HU 4-7601
Wash., Seattle—Air-Mac, Inc., 3838 Fourth
Ave. So. MU 3388

POWER-CURVE CONVEYOR CO., 2185 So. Jason St., Denver 23, Colo. Conveyors (bag and bale, portable), Elevators, Loaders (portable, self-propelled), Flatteners (bag).

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Calif., Pasadena—Empire Engineering Co., 385 E. Green St. RY 1-6178
Wash., Seattle—Stephen Thurlow Co., 1731
First Ave. So. MU 2-5488

PRESSTEEL CO., 9705 E. Garvey, El Monte, Calif. CU 3-1225 and GI 8-9790

Industrial benches and tables, Boxes (portable tool tote, stacking), Stock carts, Storage cabinets (small parts).

PRIME CO., INC., 4110 Airport Way, Seattle 8, Wash.

Stitching and stitching equipment, Strapping and strapping equipment.

PRIME-MOVER CO., East on Hwy. 22, Muscatine, Iowa Wheelbarrows (powered).

District Representatives
Calif., Pomona—R. J. Sedgwick, 2123 Kellogg Park Dr. NA 2-4346
Wash., Bellevue — James Dougan, 8733
Fourth Pl. N. E. GI 2226

Distributo Ariz., Phoenix—Equipment Sales Co., 720 So. 19th Ave. AL 8-7151 Calif., Los Angeles—Robert H. Braun Co., 5519 Jillson St. RA 3-6381 Calif., Oakland—E. C. Buehrer Assoc., Inc., 253 Fourth St. TE 6-2082
Colo., Denver — King & East Machinery Corp., 2050 Bryant St. GE 3-6413
Nev., Reno — Pioneer Equipment Co., 525
Kietzke Lane. FA 3-1333
N. Mex., Albuquerque—J. D. Coggins Co., 1717 N. Second St. 3-5505
Ore., Portland — Hallidie Machinery Co., Inc., 1915 N. E. Union
Utah, Salt Lake City — Rocky Mountain Machy. Co., 1485 S. Second W. St. HU 4-4378
Wash., Seattle — Liftco, Inc., 1921 Minor Ave.

Wash., Spokane — Liftco, Inc., East 4324 Trent

PUGET SOUND FABRICATORS, INC., 3670 E. Marginal Way, Seattle 4,

Custom fabricators of metal and alloy vessels up to one-inch thick.

See advertisement on page 141

QUAKER RUBBER DIV., H. K. POR-TER CO., INC., Tacony & Comly Sts., Philadelphia 24, Pa.

Complete line of industrial rubber products, in-cluding conveyor and transmission belting, in-dustrial and fire hose, sheet packing, ducting, pressure sensitized and silicone tape, plastic pipe.

Brunches

Calif., Los Angeles—4384 E. Bandidi Blvd. AN 3-7105 Calif., Pittsburg—P. O. Box 791. HE 9-9161 Calif., San Francisco—520 Fourth St. SU 1-5780

"QUICK-WAY" TRUCK SHOVEL CO. 2401 E. 40th Ave., Denver, Colo. Cranes (yard, truck).

Wash., Spokane—Reul Hanks, 3311 E. 16th. KE 4-3044

Distributors

Ariz., Phoenix—Equipment Sales Co., 729
So. 19th St. AL 8-7151
Calif., Fresno—Edw. R. Bacon Co., 2496 So.

So. 19th St. AL 8-7151
Calif., Fresno—Edw. R. Bacon Co., 2496 So. Railroad Ave.
Calif., Los Angeles — Smith - Booth - Usher Co., 2001 Santa Fe Ave.
Calif., Oakland—Edw. R. Bacon Co., 1135
57th Ave.
Calif., Oakland—Edw. R. Bacon Co., 211
No. Seventh St.
Calif., Sarramento—Edw. R. Bacon Co., 210
Folsom St. HE 1-3700
Calif., Stockton—Edw. R. Bacon Co., P. O. Box 2067
Colo., Denver — H. W. Moore Equipment Co., 5990 Colorado Blvd. AT 3-0771
Colo., Durango—H. W. Moore Equipment Co., 5990 Colorado Blvd. AT 3-0771
Colo., Durango—H. W. Moore Equip. Co., P. O. Box 3233
Colo., Grand Junction—P. O. Box 1797.
Phone 2868
Idaho, Boise—Arnold Machinery Co., Inc., 5024 Gage St. Phone 2-1174
Idaho, Idaho Falls—Arnold Machinery, 1265
W. Broadway
Mont., Billings—Montana Powder & Equipment Co., 1024 Fourth Ave. No. Phone 4-4428
Mont., Helena—Montana Powder & Equipment Co., 122 E. Lawrence. HI 2-2990
N. Mex., Albuquerque—J. D. Coggins Co., 1717 No. Second St. Phone 3-5505
N. Mex., Farmington—P. O. Box 1356. DA 5-3523
Ore., Portland—Columbia Equipment Co., 1240 S. E. 12th Ave. BE 2-7148
Utah, Salt Lake City—Arnold Machinery Co., 433 W. Second So. St. DA 2-5631
Wash., Seattle—Columbia Equipment Co., 5030 First Ave. Sc. LA 1530
Wash., Spokane—Columbia Equipment Co., 5030 First Ave. Sc. LA 1530
Wash., Spokane—Columbia Equipment Co., 1007 Freya St. KE 1581
Wyo., Casper—Keremi Tractor & Equipment Co., 414 So. Elm St. 3-6631
Wyo., Cheyenne—Keremi Tractor & Equipment Co., 502 W. 22nd St. Phone 8-8928

R & K INDUSTRIAL PRODUCTS CO., 1945 No. Seventh St., Richmond, Calif.

Wheels (general industrial, hand truck, rubber tired).

mtative

Representatives

Calif., Fresno—All Bearing Sales & Service, 602 Fulton St.
Calif., Los Angeles—Colson Equipment & Supply Co., 1317 Willow St.
Calif., Oakland—Colson Equipment & Supply Co., 350 10th St.
Calif., Oakland—Industrial Service, 616 McClary St.
Calif., Sacramento — Sacramento Rubber Co., 721 "J" St.
Calif., San Diego—Myers Equipment Co., 1025 11th St.
Calif., San Francisco—Colson Equipment & Supply Co., 20 Beale St.
Calif., San Francisco—Murphy & Simi Co., 912 Howard St.
Calif., Santa Barbara—Industrial Products, 11 E. Haley St.
Colo., Denver — Joe Coursey, 1243 Walnut St.
Colo., Denver — Murray Sales Co., Wazee

Colo., Denver — Murray Sales Co., Wazee Market Ore., Portland—F. E. Bennett Co., 426 N.W.

Ore., Portland—F. E. Bennett Co., 420 N.W. Sixth Ave.
Ore., Portland — Oregon Handling Equipment Co., 2949 N. W. St. Helens Rd.
Utah, Salt Lake City—Webb Co., 533 So. Second W. St.
Wash., Seattle—Air-Mac Inc. of Washington, 3828 Fourth Ave.
Wash., Seattle—J. W. Ralston Co., 1401 W. Garfield St.

Wash., Seatue Garfield St. Spokar

Wash., Spokane—Standard Equipment Co., E. 2725 Sprague Ave.

RACK ENGINEERING CO. OF CALIF., INC., 731 W. 182nd St., Gardena,

Tote pans (steel, perforated metal), Boxes (corrugated steel, wire, expanded and perforated metal), Pallet and storage racks (patented boltless adjustable, botted adjustable, fixed welded designs, adjustable cantilever arm type, sheet storage and shop carts), Rack conveyor systems, Trailers (shop, train, Towveyor type), Basic section racks (square tubular adjustable type), Pallets (wire, corrugated steel), Trailer coupler (semi-automatic type), Catters (steel, plastic, rubber), Tables (hydraulic elevating, sheet feeding, conveying, portable), Bar storage racks (adjustable arms, vertical adjustable A frame, horizontal arm, U frame, pigeonhole), Tool storage cabinet and crib systems, Trucks (bag, barrel, drum, box type, die handling, dollies, pallet, hand lift, hydraulic pallet lift), Conveyors (gravity roller, skate wheel), Grabs (automatic bar handling), Skids (steel, ironbound).

Distributors

Distributors

Ariz., Phoenix — Kinney Materials Handling Equipment, Inc., 929 Grand Ave. AL 8-2778

Ariz., Phoenix—Naumann Lift Trucks, Inc., 2308 So. 11th Ave. AL 8-8951

Calif., Fresno—Gray Lift, Inc., 1905 Mary St. AM 8-6256

Calif., Los Angeles—Green-Penny Co., 4180 Noakes Ave. AN 8-3321

Calif., Los Angeles—Storage Rack Systems, Inc., 3659 Whittier Blvd. AN 9-2174

Calif., Oakland — Green-Penny Co., 2211

San Pablo Ave. GL 1-8555

Calif., San Francisco—J. A. Old & Son, 325

Fifth St. SU 1-1100

N. Mex., Albuquerque—Albuquerque Materials Handling Co., 6431 Linn Ave. Phone 6-5518

Ore., Portland—Robert Dodd Co., 5210 S.W. Corbett. CA 8-8603

Wash., Seattle — Timmerman Equipment, Inc., 1310 Western Ave. MU 2-2767

RAPIDS STANDARD CO., 342 Rapistan Bldg., Grand Rapids 2, Mich. Casters, Conveyors (belt, gravity roller, live roller, everhead, pallet, portable, Racks (storage), Trucks (hand), Wheels (hand truck).

Representatives

Representatives

Ariz., Phoenix—Kinney Materials Handling
Equipment Co., 929 Grand Ave. AL 8-2778

Calif., Los Angeles—E. A. Stevenson Co.,
820 Santa Fe Ave. TR 6905

Calif., San Francisco—Rapistan of Calif.,
444 Brannan St. YU 2-3880

Colo., Denver—Murray Sales Co., 16 Wazee
Market. KE 4-5296

Ore., Portland—Air-Mac, Inc., 1111 S. E.
Grand Ave. BE 4-6524

Utah, Ogden—The Horsley Co., 2416 Grant
Ave. EX 3-8477

Wash., Seattle—Air-Mac, Inc., 3838 Fourth
Ave. So. MU 2-3388

RAPISTAN-KEYSTONE, INC., 21750 W. Eight Mile Rd., Detroit 41, Mich.

RAYBESTOS-MANHATTAN - ROLL RITE CORP.

Overhead trolley and chain conveyor, Overhead power and free conveyor, Overhead monorail, Continuous vertical lift chain conveyor, Dry clean-

Calif., Los Angeles—E. A. Stevenson Co., 820 Santa Fe Ave. TR 6903 Calif., San Francisco—Rapistan of California, 444 Brannan St. YU 2-3880 Colo., Denver—Murray Sales Co., 16 Wazee Market. KE 4-5296 Ore., Portland — Aur-Mac Inc. of Oregon, 1111 S. E. Grand Ave. BE 4-6524 Utah, Ogden—Horsley Co., 2416 Grant Ave. EX 3-8477 Wash. Seattle—Air-Mac Inc. of Washing Wash. ash., Seattle—Air-Mac Inc. of Washington, 3838 Fourth Ave. So. MU 3388

RAYBESTOS - MANHATTAN, INC., MANHATTAN RUBBER DIV., 61 Willett St., Passaic, N. J.

Belting (conveyor, fabric, canvas, elevator, end-less), Elevators (belt, bucket), Slings (belt).

Los Angeles—4651 Pacific Blvd. LU Calif., Los Angeles—4651 Pacific Bivd. Lo 8-4254 Calif., So. San Francisco—168 Beacon St. PL 6-6981 Ore., Portland—1220 S. W. Stark St. Wash., Seattle—2450 Sixth Ave. So.

RAYMOND CORP., 161 Madison St., Greene, N. Y.

Platforms (loading), Stackers (electric portable, hand portable), Tables (elevating, portable, sheet feeding), Trucks (electric fork, hand, motorized hand, hand lift, hand-electric lift, hudraulic lift, power-driven lift, pallet, skid handling, electric stantage)

Representatives

Ariz., Phoenix—Charles Bergen, 3825 W. Indian School Rd.
Calif., Los Angeles—W. T. Billard, Inc., 734 E. Third St. MI 2659
Calif., San Francisco—Rapistan of California, Inc., 444 Brannan St. YU 2-3880
Colo., Denver—Murray Sales Co., 16 Wazee St. KE 5297
Ore., Portland—Air-Mae, Inc., 1435 S. E. Union FI 6524
Utah, Ogden—The Horsley Co., 2416 Grant Ave.
Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. So. MU 3388
Wash., Spokane — Air-Mac, Inc., E. 3710
Trent Ave. KE 0561

RCA MOBILE COMMUNICATIONS, Front & Cooper Sts., Camden 8,

Two-way radio for fork lift and material handling

Calif., San Francisco—420 Taylor. OR 3-3027 alif., Los Angeles — 1560 W. Vine. HO 9-2154 Wash., Seattle-2250 First Ave. So. MA 8350

READY-POWER CO., 3826 Grand River, Detroit 8, Mich.

Power units for electric industrial trucks.

Calif., Huntington Park—3370 E. Florence LY 5-2883

Representative
Calif., Huntington Park—Karl Moellendick
(parts and service), 7813 California. LU
2-7425 Z-1425 Calif., Huntington Park—R. W. Stephenson (sales), 3370 E. Florence. LU 5-2883

REEVES PULLEY CO., DIV. RELIANCE ELECTRIC & ENGINEERING CO.,

1225 Seventh St., Columbus, Ind. Belting, Pulleys, Variable speed drives, controls.

Branch Offices
Calif., Burlingame — 1525 Adrian Rd. OX
7-5341
Calif., Los Angeles—2557 Yates Ave. RA 3-8454 Calif., Sacramento—2015 J St. GI 8-1682

Representatives

Colo., Denver—Hamilton Assoc., 1236 Elati.
CH 4-1505
Ore., Portland—Shaffer & Nelson Co., 139
S. E. Taylor St. BE 4-7437

Utah, Salt Lake City—C. W. Silver Co., 550 W. 7th So. St. EL 5-5378 Wash, Seattle—Shaffer & Nelson, 312 Oc-cidental Ave. MU 0186-0187 Wash., Spokane—Shaffer & Nelson Co., P. O. Box 198. FA 7-9528

REMCO MFG. CO., P. O. Box 624, Willits, Calif.

Complete line of standard and special hydraulic and pneumatic cylinders and accumulators; Telescopic rams.

Representatives
Calif., San Jose—E. C. Reichlein, 1502 Hurlingham Way. CL 8-6790

REPUBLIC RUBBER DIV., LEE RUBBER & TIRE CORP., 1410 Albert St., Youngstown, Ohio

Conveyor and elevator belting (rubber covered, friction surface), Super Grip Top Package conveyor belting.

Representatives

Calif., Los Angeles — Hendrie Belting & Rubber, 405 Towne Ave.
Calif., San Francisco—Pacific Coast Rubber, 51 Main St.
Ore., Portland—J. E. Haseltine & Co., P. O.
Box 3342
Ore., Portland—T. W. Marx, 2444 N. E. 57th
Ave.

REPUBLIC STEEL CORP., Republic Bldg., Cleveland 1, Ohio

Barrels (shipping, steel), Bins, Boxes (shipping, tote), Pallets, Racks (pallet, storage), Skids.

Calif., Los Angeles—M-H Equip., General Petroleum Bldg. MI 5144
Calif., San Francisco—M-H Equip., 225 Rialto Bldg. GA 1-097
Colo., Denver—M-H Equip., 405 Continental Oil Bldg. MA 3-5289
Ore., Portland — Berger Div., 1801 N. W. Northrup St. CA 6944
Wash., Seattle — M-H Equip., 6636 White-Henry-Stuart Bldg. MA 8583

Calif., Fresno—Petley, Inc., Anglo Bank Bldg. Calif., Los Angeles—Petley, Inc., 5424 E. Slauson Ave. RA 3-3327 Calif., Oakland—Petley, Inc., 899 73rd Ave. TR 2-7621

REVOLVATOR CO., 8798 Tonnele Ave., North Bergen, N. J.

Cranes (hand power, Elevators (portable tiering), Racks, Stackers (portable electric, portable hand), Tables (elevating), Trucks (elevating or lifting, electric fork, hand, motorized hand, industrial, hand lift, hand-electric lift, hand-mechanical lift, hydraulic lift, power-driven lift, pallet, skid handling, electric tiering).

Representatives
Calif., Lynwood—J. W. Lafferty Co., 11371
So. Atlantic Ave. NE 6-1828
Calif., San Francisco—Ira G. Perin Co., 575
Howard St. GA 1-1827
Ore., Portland—Oregon Handling Equipment Co., 2949 N. W. St. Helens Rd.
Wash., Seattle—Cascade Handling Equipment Co., 911 Western Ave. MA 7069

RHEEM MFG. CO., 4361 Firestone Blvd., South Gate, Calif. LO 7-1155 Barrels for shipping (fibre, steel).

Calif., Richmond — 800 Chesley Ave. BE 4-7114

RHOADS, J. E., & SONS, 2100 W. 11th St., Wilmington 99, Del.

Belting (leather), Belt fastenings and belt lacings.

Calif., Los Angeles—R. H. Hergert, 704 So. Spring St.
Ore., Portland—General Rubber & Supply Co., 2258 N. W. Raleigh

RICHARDSON SCALE CO., 668 Van Houten Ave., Clifton, N. J.

Conveyors (belt, portable, screw), Scales (automatic, packaging, portable), Packaging machinery.

Calif., San Francisco—580 Market St. SU 1-3724

RICHARDS-WILCOX MFG. CO., 174 Third St., Aurora, III.

Conveyors (automatic, chain or link, continuous flow, overhead, trolley), Cranes (hand power, jib, piller, swing, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, I beam overhead, monoral overhead.

Calif., Los Angeles-2323 W. Third St. DU Calif., Los Angeles—2323 W. Third St. DU 8-6173 Calif., San Francisco — 850 So. Van Ness Ave. MI 8-6700 Ore., Portland — 317 Bldrs. Exch. Office CA 8-6443 Wash., Seattle—1160 Fairview, No. MA 3650

ROBBINS & MYERS, INC., HOIST & CRANE DIV., 1345 Lagonda Ave., Springfield, Ohio

Cranes (gantry, hand power, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, I beam overhead, monorail overhead). Hoists (chain, crane, drum, electric, hand, monorail, portable, traveling).

Representatives
Calif., Compton-K. J. Verrinder, 2310 No. Alameda St.

Colo., Denver — Material Handling Equip.
Co., 1795 Sheridan Blvd.
Ore., Portland—McMahon Bros., Inc., 204
Fitzpatrick Bldg.
Wash., Seattle—F. T. Crowe & Co., Inc.,
325 Second Ave. W.

ROCKY MOUNTAIN STEEL, see ELEC-TRIC PONY EXPRESS CO., a div.

ROEBLING'S, JOHN A., SONS CORP., 640 So. Broad St., Trenton 2, N. J.

Slings (wire rope), Wire rope.

Branches

Calif., Los Angeles—5340 E. Harbor St. RA 3-6421 Calif., So. San Francisco—340 Roebling Rd. JU 9-2877 Colo., Denver—4801 Jackson St. FR 7-2769 Wash., Seattle—900 First Ave. So. MA 4992

ROL-AWAY TRUCK MFG. CO., INC., 6143 S. E. Foster Rd., Portland 6,

Carts, Trucks, Ladder trucks (aluminum, box type, factory, Warehouse, hand, sheet handling, high access maintenance, stock-pickers, utility trucks, heavy flat load trucks, others).

Representatives

Representatives

Ariz., Phoenix — Kistler Ind. Service, 902
So. Central Ave.
Caiff., Los Angeles—Colson Equip. & Supply Co., 1317 Willow St.
Califf., Los Angeles—Trving G. King & Co., 821 Mateo Ave.
Califf., Oakland—E. C. Buehrer Assoc., Inc., 253 Fourth St. TE 6-2082
Califf., San Diego—C. S. Goodale Co., 843 India St.
Califf., San Francisco—P. G. Corcoran Co., 450 Potrero Ave.
Califf., So. San Francisco — Hamerslag Equipment Co., 110 Freeway Blvd.
Colo., Denver — Joe Coursey Equip. Co., 1243 Walnut. AC 2-9581
Colo., Denver—J. D. Whiting, 4135 Quitman St.
Utah, Sait Lake City—Equipment Supply Co., 16 Post Office Pl.
Wash., Seattle—Air Mac Inc. of Washington, 3338 Fourth Ave. So.
Wash., Seattle—R. H. Brown Co., 502-506
First Ave. SE 3100

ROLL RITE CORP., 801 Jefferson St., Oakland 9, Calif. GL 1-5921

Carts (hand, push, other), Casters, Conveyors (pallet), Dock boards, Loading platforms, Racks (pallet, storage, other), Loading Ramps, Tires (industrial truck and trailet), Tesffars (factory and warehouse), Trucks (bag, barrel, drum, box type, dolly, factory and warehouse, hand, pallet), Wheels (general industrial, hand truck, rubber tired, trailer), Skeleton Steel Pallets.

ROPER HYDRAULICS, INC., Blackhawk Park Ave., Rockford, III. Pumps (liquid handling).

Calif., Los Angeles—2011 So. Santa Fe Ave. MA 7-5662

MA 7-5662

Representatives

Ariz., Phoenix—Salt River Pump & Supply Co., 2846 Grand Ave. AL 3-3526
Calif., San Francisco—Woodin & Little, 80
Elmira St. JU 6-6500
Ore., Portland—Pacific Pumping Co., 526
N. W. Broadway. CA 8-2121
Utah, Salt Lake City — Robert Taylor &
Sons, 1077 So. Main St. DA 2-5525

ROTARY LIFT CO., 1054 Kansas St., Memphis 2, Tenn.

Dock ramps (fully automatic, mechanical oil hydraulic), Levelator lifts (oil hydraulic), Truck levelers (oil hydraulic), Transfer bridges and crossover bridges (oil hydraulic), Jacks (oil hydraulic), Elevators (passenger, freight, oil hydraulic).

Branch
Calif., Pacific Palisades—727 Chapala Dr.

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Representatives
—Phoenix Elevator Co., Title Phoenixand Trust Bidg.
Calif., Fresno—Valley Elevator Co., 921 L Calif., Fresno—Valley Elevator Co., 921 L St.
Calif., Los Angeles—Shields Harper & Co., 2650 Leonis Blvd.
Calif., Oakland—Moody, Sweazey & Rowe, 2510 Fibert St.
Calif., Sacramento — Valley Elevator Co., 1606 D St.
Calif., San Jose — San Jose Elevator Co., 1016 Stockton Ave.
Colo., Denver—Wm. Colin Kirk & Associates, 1197 Stout St.
N. Mex., Albuquerque—Hunter-Hayes Elevator Co., 106 Buena Vista S. E.
Ore., Portland—Oregon Elevator Co., 902 S. E. Mill St.
Utah, Sait Lake City—Elevator Service & Supply Co., 36 E. Ninth South St.
Wash., Seattle—Sound Elevator Co., 2718 Elliott Ave.
Wash., Spokane — Spokane Elevator Co., 1908 E. Mallon Ave.
Wash., Tacoma—Globe Machine Manufacturing Co., 301 E. 11th St.

ROWE METHODS, INC., 2534 Detroit Ave., Cleveland 13, Ohio Adjustable loading ramps, Adjust-A-Dock, Adjust-A-Truck.

Representatives

Calif., Oakland—Industrial Service Co., 616

McClary St. LO 9-2545

See advertisement on page 72

Ore., Portland—Air-Mac, Inc., 1111 S. E. Grand. BE 4-8524 Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave., So. MU 3388

RUCKER CO., 4700 San Pablo Ave., Oakland 8, Calif.

Jacks (hydraulic), Packaging Machinery, Pumps (liquid handling), Scales (automatic, packing).

Calif., South Gate — 4956 Firestone Blvd. LO 4-2521 Ore., Portland—1633 N. W. 21st Ave. CA 3-0205 Seattle-1000 Fourth Ave. So. MA

RUGER EQUIPMENT, INC., 615 W. Fourth St., Uhrichsville, Ohio

Cranes (hand power, hydraulic, portable), Hoists (crane, hand, hydraulic, portable), Hand-operated Hydraulic Truck-Mounted Cranes.

Representatives
Calif., Hollydale — James Staneart, P. O.
Box 23. ME 3-0386
Ore., Portland—Ruger Equipment Co., 2784
N. W. Thurman. CA 7-6282

RUSSELL MFG. CO., 400 E. Main St., Middletown, Conn.

Belting (conveyor, woven cotton, treated and untreated, stitched canvas, rubber, endless woven), Slings (cotton, nylon, Dacron).

Branch Calif., Oakland-555 Fifth Ave. GL 2-2442

Representative
Colo., Denver—Michael & Frye, Inc., 3319
W. 36th Ave. GL 5-5915

SACKNER PRODUCTS, INC., 901 Ottawa Ave., N. W., Grand Rapids 2,

Packaging pads, Padding materials, Padded steel Representatives

Calif., Los Angeles—Glenn D. McLaughlin Co., 2442 Hunter St. TU 8161 Calif., San Francisco—16th and Carolina Ave. Colo., Denver—Acme Upholstery Supply,

Ave.

Colo., Denver — Acme Upholstery Supply,
1401 Blake St. AC 2-3823

Ore., Portland—Van Waters & Rogers, 2133

N. W. York St.
Wash., Seattle—Van Waters & Rogers, 4000
1st Ave., So. SE 5050

Wash., Spokane — Van Waters & Rogers,
200 No. Washington ash., Spokane — Va 809 No. Washington

SAGINAW PRODUCTS CORP., 68 Williamson St., Saginaw, Mich.

Axles (trailer), Carts, Casters, Conveyors (belt, gravity roller, live roller, trolley), Idlers (conveyor), Jacks (lift, screw), Rollers (conveyor), Tires, Trailers (factory and warehouse), Trolley, Trucks (die handling, factory and warehouse), Wheels (conveyor, general industrial, hand truck, rubber tired, trailer).

Calif., Culver City—5333 Sepulveda Blvd.

Representative
Calif., Berkeley—Walter W. Weyman Co.,
607 Addison St. TH 5-3990

SAGINAW STEERING GEAR DIV., GENERAL MOTORS CORP., 3900 Holland Rd., Saginaw, Michigan

Ball bearing screw and splines for actuators in lift trucks, hoists, etc.

Calif., Los Angeles — 13273 Ventura Blvd. ST 9-4343

SAMMONS & SONS, 2911 Norton Ave., Lynwood, Calif.

Storage racks, Adjustable pallet storage racks, U racks, Custom-built racks, Heavy-duty die storage racks.

Representative
Calif., Los Angeles—Equipment Engineering Services, 671 So. Lafayette Park Pl. DU 7-8521

SANDVIK STEEL, INC., 1702 Nevins Rd., Fair Lawn, New Jersey

Stainless and carbon steel, cold rolled steel conveyor belts; Steel belt accessories such as idlers, pulleys, bearings, etc.; Compete conveyors and engineering service.

Calif., Los Angeles—3338 South Malt Ave. RA 3-9116

SAUERMAN BROS., INC., 620 So. 28th Ave., Bellwood, Ill.

Conveyors (drag), Hoists (air, drum, electric, gasoline), Winches and windlasses, Wire rope and fittings.

Representatives
Calif., Los Angeles — Smith-Booth-Usher,
2001 Santa Fe Ave. TR 6911
Calif., San Francisco — H. L. Davis, 607
Market St. GA 1-0428
Colo., Denver—Constructors Equipment
Co., 3707 Downing St. AL 5-3474
Mont., Butte—Hall-Perry Machinery Co.,
812 E. Iron. Phone 2-2823
Ore., Portland—Clyde Equipment Co., 1631
N. W. Thurman. CA 7-5561
Wash., Seattle—Clyde Equipment Co., 3410
First Ave. So. MA 1235
Wash., Seattle—Northern Commercial Co.,
419 Colman Bldg.
Wash., Spokane—Intermountain Equipment Co., 611 Sprague St. TE 2521

SCHIELD BANTAM CO., 223 Park St., Waverly, Iowa

Cranes (yard, truck, carrier-mounted, crawler-mounted, self-propelled, power), Clamshells, Drag-lines, Grappies, Back hoes, Shovels, Magnets, Pile-drivers, Backfillers.

Branch Offices
Calif., Cherry Valley—John C. Carlile, Rt.
1, Box 642
Wash., Spokane—R. A. Otterness, P. O. Box 849

Representatives

Alaska, Anchorage—Yukon Equipment, Inc., P. O. Box 1539

Alaska, Fairbanks—Yukon Equipment, Inc., P. O. Box 1539

Alaska, Fairbanks—Yukon Equipment, Inc., P. O. Box 1290

Ariz., Phoenix—Western Machinery Co., P. O. Box 6472

Ariz., Tucson—Western Machy. Co., P. O. Box 5571

Calif., Bakersfield—Inland Equipment Co., P. O. Box 1303

Calif., Eureka—Trinity Tractor Co., P. O. Box 4700

Calif., Fresno—Contractors Equipment & Supply Co., 1143 "C" St.

Calif., Los Angeles—Cook Bros. Construction Machinery Co., 3334 San Fernando Rd.

Calif., Oakland—Cook Bros., Truck & Equip. Co., 7101 San Leandro St.

Calif., Santa Maria—Shasta Truck & Equip. Sales, Inc., P. O. Box 855

Calif., Santa Maria—Hanson Equipment Co., P. O. Box 870

Mont., Missoula—Taber White Truck Co., P. O. Box 282

Colo., Grand Junction—Power Equipment Co., P. O. Box 1282

Colo., Grand Junction—Power Equipment Co., P. O. Box 1848, Orchard Mess, U. S.

Colo., Denver—Power Equipment Co., P. O. Box 28
Colo., Grand Junction—Power Equipment Co., P. O. Box 1848, Orchard Mesa, U. S. Hwy. 50
Hawaii, Honolulu — Edward R. Bacon of Hawaii, Ltd., P. O. Box 379
Idaho, Boise — Engineering Sales Service, Inc., P. O. Box 976
Idaho, Pocatello — Engineering Sales Service, Inc., P. O. Box 976
Mont., Billings—Industrial Equipment Co., P. O. Box 1396
Mont., Billings—Industrial Equipment Co., P. O. Box 367
Nev., Reno — Reno Equipment Sales Co., P. O. Box 367
Nev., Reno — Reno Equipment Sales Co., P. O. Box 563
Ore., Medford — Cal-Ore Machinery Co., P. O. Box 232
Ore., Portland — Wood Tractor Co., 5241
N. E. 82nd
Utah, Salt Lake City—Kimball Equipment Co., P. O. Box 1103
Wash., Seattle—Western Tractor & Equipment Co., 745 Lucile St.
Wash., Seattle—Vyukon Equipment, Inc., 327 Colman Bldg,
Wash., Spokane — Modern Machinery Co., Inc., P. O. Box 97, Parkwater Station

SCHULTZ MATERIALS HANDLING CORP., 340 11th St., Richmond 5,

Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, I beam overhead, monorail overhead, Trolleys (hoist).

Branch Calif., So. San Francisco — 42 So. Linden Ave. JU 3-9519

SCREW CONVEYOR PACIFIC CORP., 1100 Richard Ave., Santa Clara, Calif. CH 3-2276

Conveyors (continuous flow, screw, belt), Eleva-tors (bucket, continuous flow), Hy-Flo drag-type conveyor, Screw-Lifts, Screw-Veyors, Screw-Flo, Kewanee truck dumpers (hydraulic), Kewanee over-head truck lifts, Grain grates, Grain spouts.

Representatives
Calif., El Centro—W. H. Douthitt Steel & Supply, P. O. Box 220. EL 2-5701
Calif., Fresno—Commercial Mfg. & Supply, 2432 So. Railroad. AD 7-6101
Calif., Fresno—Commercial Mfg. & Supply, 2432 So. Railroad. AD 7-6101
Calif., Long Beach—Bay City Bearing Co., 709 W. 16th St. HE 2-5485
Calif., Sacramento—Capital Mach. & Welding Works, 83 No. 17th. Gl 3-2556
Calif., Stockton—Guntert & Zimmerman Sales Div., P. O. Box 1688. HO 4-8712
Calif., Woodland—Woodland Mill Supply, P. O. Box 426. MO 2-3231
Ore., Portland—Reid-Strutt Co., Inc., S. E. 11th at Stark. BE 4-5011

SELMA TRAILER & MFG. CO., P. O. Box 120, Selma, Calif.

SHAW-BOX CRANE — SPS WESTERN

Trailers (hydreulic, tank, tilt had and equipmer Baskets (vegetable, fruit), Axles (trailer custo built).

SHAW-BOX CRANE & HOIST DIV., MANNING, MAXWELL & MOORE, INC., Muskegon, Mich.

Cranes (charging and drawing, gantry, hand pow-er, jib, pillar, swing, bracket, double beam over-head, electric and electric traveling overhead, hand power traveling overhead, I beam overhead), Hoists, chain, crane, derrick, drum, electric, hand, monorail, portable, traveling, air, hydraulic), Scales (portable), Slings (chain).

Calif., San Francisco—1295 Folsom St. UN 1-3870

SHEPARD NILES CRANE & HOIST CORP., Schuyler Ave., Montour Falls, N. Y.

Crones (charging and drawing, gantry, hand power, jib, pillar, swing, bracket, double beam everhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, l-beam overhead, locomotive overhead, monorail overhead, yeard truck, tractor, transfer, underhung, grab bucket), Hoists (air, bucket, chain, crane, derrick, drum, electric, monorail, portable, skip, traveling close clearance, base mounted, hot metal carriers), Winches and Windlasses.

B. C., Vancouver—J. H. Ryder Machinery
Co., 2120 Main St. EM 9424
Calif., Bell—6515 Salt Lake Ave. LU 2-6255
Calif., San Leandro—426 Hester St.
Colo., Denver—Patten Eng. Co., 1795 Sheridan. BE 7-0433
Ore., Portland — Paulson Machine Works, 1433 N. W. Quimby
Utah, Salt Lake City—Modern Equipment
Co., 52 W. Second So. St. DA 2-5887
Wash., Seattle—Preston Faller, 1921 Minor Ave. MA 4256

SHERMAN PAPER PRODUCTS CORP. OF CALIF., 2001 No. Soto, Los Angeles 32, Calif.

Flexible and rigid paper packing materials, Bags (shipping), Tables (portable packing for dispensing

Calif., San Francisco—90 Charter Oak Ave. Colo., Denver—416 So. Ogden Ct. PE 6671 Wash., Seattle—1523 Airport Way. MA 6838

SHUFORD MILLS, INC., P. O. Drawer 340, Hickory, N. C.

Twine, Cordage, Pressure sensitive tape.

Representatives

Zellerbach Paper Co. branches throughout
the West. Consult telephone book or
write Zellerbach home office: 535 Battery St., San Francisco 26, Calif.

SIER-BATH GEAR & PUMP CO., INC., 9252 Hudson Blvd., No. Bergen,

N. J.

Calif., San Rafael—59 Billou St. GL 3-9293

Calif., San Rafael—59 Billou St. GL 3-9293

Representatives
Calif., Fresno—Gordon Equipment Co., 201
Van Ness
Calif., Los Angeles — Andrews Hdwe. &
Metal, 334-336 So. Main St.
Calif., Los Angeles—B. B. Supply Co., Inc.,
4849 Telegraph Rd.
Calif., Los Angeles—Edward T. Maltby Co.,
1040 So. Figueroa St.
Calif., Maywood—Bearings Belts & Chain
Co., 4035 E. 52nd St.
Calif., Sacramento — Capital Machine &
Welding Works, 83 No. 17th St.
Calif., Sacramento — Sacramento Eng. &
Mach. Works, Sixth & X Sts.
Calif., San Francisco—Adam-Hill Co., 142
Utah Ave. JU 8-8755
Colo., Denver—Harry J. Glass & Assoc.,
F. O. Box 1085
Colo., Denver—Hendrie & Bolthoff Co.,

P. O. Box 1055
P. D. Box 1055
P. O. Box 1055
P. D. Box 1055
P. D.

Nev., Late Volume St. Co., 300 W. Wyoming St. Nev., Reno—Styris-Sutton & Co., 622 No. Virginia St. Ore., Portland—Berg Evans Chain Co., 240 S. W. First St.

Ore., Portland—Pacific Pumping Co., 526
N. W. Broadway
Utah, Salt Lake City—Bearings Service &
Supply Co., 1207 So. Main
Wash., Aberdeen—Bearings Sales & Service, Inc., 2317 E. Market St.
Wash., Everett—Bearing Sales & Service, Inc., 2803 Grand Ave.
Wash., Longview—Bearing Sales & Service, Inc., 243 Commerce Ave.
Wash., Longview—Bearing Sales & Service, Inc., 319 W. Clark St.
Wash., Pacso—Bearing Sales & Service, Inc., 319 W. Clark St.
Wash., Port Angeles—Bearing Sales & Service, Inc., Box \$72
Wash., Seattle—Bearing Sales & Service, Inc., 2008 Sixth Ave.
Wash., Seattle—Berg Evans Chain Co., 2221
Fourth Ave. So.
Wash., Spokane—General Machine Co., 3500 Riverside at Freya
Wash., Tacoma—Bearing Sales & Service, Inc., 1743 Jefferson St.

SIGNODE STEEL STRAPPING CO., 2600 No. Western Ave., Dept. 113 WMAPBD, Chicago 47, III.

Steel Strapping, Tools and Accessories, Expendable Pallets, Retaining Strips and Doors, Adjusta-Paks

Phoenix — 210 W. Adams St. AL Ariz., Phoenix — 210 W. Adams St. AL 8-5691 Calif., Los Angeles—659 E. Gage Ave. AD 3-6184 Calif., Pittsburg, P. O. Box 909. HE 9-9151 Colo., Denver—529 E. Ohio. PE 3-3898 Ore., Eugene—1955 Todd. DI 3-5156 Ore., Portland—1519 N. W. Irving St. CA 3-5327

See advertisement on page 19

Utah, No. Salt Lake City-P. O. Box 194. EM 4-8353 Em 4-6501 Wash, Seattle—1750 Occidental Ave. and 2-2343 Wash, Spokane—617 Paulsen Bldg. MA 4-6211 Seattle-1750 Occidental Ave. MU

SILENT HOIST & CRANE CO., 841 63rd St., Brooklyn 20, N. Y.

Cranes (yard, truck, tractor), Loaders (portable, self-propelled), Trucks (diesel fork, gasoline fork, gasoline industrial, gasoline lift), Winches and Windlasses.

Calif., San Francisco — Hamerslag Equipment Co., 45 Elmira St. JU 7-1357
Calif., South Gate—Cost Reduction Equipment Co., 5200 Chakemco St. LO 7-2487
Idaho, Boise — Intermountain Equipment Co., P. O. Box 1129. Phone 3-6441
Mont., Missoula — Westmont Tractor & Equipment Co.
N. Mex., Albuquerque—R. L. Harrison Co., P. O. Box 1320. Phone 7-8811

SIMPLICITY ENGINEERING CO., 215 So. Oak St., Durand, Mich.

Conveyors (foundry, vibrating), Feeders (vibrating).

Branch Calif., El Monte — Dick A. Aleshire, 2226 Rosemead Blvd. GI 8-5290

Representatives

Representatives

Calif., Los Angeles—Snyder Foundry Supply Co., 2444 E. 57th St.
Calif., Oakland—Pacific Graphite Co., Inc., 40th and Linden Sts.
Ore., Portland—LaGrand Industrial Supply Co., 15 S. W. Arthur
Wash., Seattle—Carl F. Miller & Co., Inc., 1217 So. Sixth Ave.

SKAGIT STEEL & IRON WORKS, Sedro Wooley, Wash.

Winches, Windlasses, Hoists, Marine deck ma-

Representatives

Calif., Chico—Sierra Tractor & Equipment,
1240 Park Ave.
Calif., Crescent City — Brizard-Matthews
Machinery
Calif., Eureka—Brizard-Matthews Machinery,
P. O. Box 77
Calif., Los Angeles — Smith-Booth-Usher
Co., 2001 Santa Fe Ave.
Calif., Napa—Berglund Tractor & Equipment, 1016-18 Soscol Ave.
Calif., Oxnard — Wallace Machinery, 625
No. Oxnard
Calif., Redding—Sierra Tractor & Facility Machinery, 625
ment

Calif., Santa Rosa — Berglund Tractor & Equipment Calif., Willits—Berglund Tractor & Equip-Calif., Willits—Berglund Tractor & Equipment
Colo., Denver — Western Machinery Co.,
2400 W. 7th Ave.
Colo., Grand Junction—S & M Supply Co.,
735 Fourth Ave.
Mont., Billings—Seitz Machinery Co., 420
No. 24th St.
Nev., Reno — Sierra Machinery Co., 307
Morrill Ave.
N. Mex., Albuquerque—R. L. Harrison Co.,
Inc., 1801 N. 4th St.
Ore., Arlington—Empire Machinery Co.
Ore., Astoria—Halton Tractor Co.
Ore., Coquille—Pape Bros., Inc., 1865 W. 6th
Ore., Grants Pass—Cascade Industrial Supply

Ore., Eugene—Pape Bros., Inc., 1865 W. 6th Ore., Grants Pass—Cascade Industrial Supply Ore., Klamath Falls — Cascade Industrial Supply, 515 Market St.
Ore., LaGrande — Inland Machinery Co., 212 Greenwood Ore., Pendleton — Empire Machinery Co., 1849 S. W. Court Ave.
Ore., Portland — Halton Tractor Co., 2439 N. W. 29th Ore., Roseburg—Pape Bros., Inc. Ore., Salem—Halton Tractor Co. Ore., The Dalles—Empire Machinery Co. Wash., Longview—Halton Tractor Co. Wash., Mt. Vernon—N. C. Machinery Co. Wash., Seattle—N. C. Machinery Co. Wash., Seattle—N. C. Machinery Co., 4233 W. Marginal Way Wash., Spokane—Inland Diesel & Machinery, 2511 E. Trent Wash., Wenatchee—Columbia Tractor Co., 239 No. Wenatchee

SPANMASTER CRANE DIV., JERVIS B. WEBB CO. OF CALIF., 9301 Rayo

Ave., South Gate, Calif.

Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power overhead, I beam overhead, monorail overhead), Hoists (monorail), Trolleys.

San Francisco—2166 Market St. KL Calif., S 2-2709 Utah, Salt Lake City-52 W. Second So. St. EL 9-2171

SPAULDING FIBRE CO., INC., 310 Wheeler St., Tonawanda, N. Y. Vulcanized fibre tote boxes, Barrels, Factory handling containers, Boxes, Trays, Factory trucks.

Berkeley-1780 Shattuck Ave. TH Calif., Berkeley—1780 Shattuck Ave. TH 5-7941 Calif., Burbank—359-A E. Magnolia Blvd. TH 5-7243 Calif., Los Angeles—8124 So. Western Ave. PL 3-5439

SPRAYKING, INC., 750 Castelar St., Los Angeles 12, Calif. Conveyors (overhead, flat belt).

SPRINGPORT STEEL PRODUCTS CO., 120 Willow St., Springport, Mich.

Wire mesh containers and pallets for shipping, storage and material handling.

Calif., Los Angeles—M. E. Canfield Co., 419
E. Third St. MA 6-6606
Calif., Los Angeles—McKinley Equipment
Corp., 1557 Esperanza. AN 9-0567
Calif., San Francisco — Hamerslag Equipment Co., 110 Freeway Blvd. JU 7-3157
Wash., Seattle—Mechanical Handling Co., 1401 W. Garfield. GA 0200

SPECIFICATION PACKAGING EN-GINEERING CORP., 6869 Tujunga Ave., North Hollywood, Calif.

Packaging, Packing, Preservation, Crating, Boxing; Consultant Engineering & Design, Commercial, In-dustrial and Military. Complete Contract Packag-ing and Documentation Service.

SPS WESTERN, 2701 Harbor Blvd., Santa Ana, Calif. Steel shelving, Erectomatic shelving.

STACKBIN CORP., 1137 Main St., Pawtucket, R.I.

Bins, tote boxes pallets, trucks (dolly, hand).

STANDARD CONVEYOR CO., 320 N. W. 2nd St., No. St. Paul 9, Minn. Conveyors (apron, automatic, bag, bale, belt, chain or link, continuous flow, foundry, gravity roller, live roller, pallet, portable, skate, slat).

Sales Representatives
Calif., Los Angeles—115 E. 23rd St. RI 1150
Wash., Seattle—P. O. Box 1655, Lake City

Factory Representatives
Calif., San Francisco—Acme Equip. Co., 801
Minnesota St.

STANDARD PRESSED STEEL CO., Box 913, Jenkintown, Pa.

Metal shelving, Work tables.

Calif., Santa Ana—2701 So. Harbor Blvd. KI 5-9311

STANLEY STEEL STRAPPING DIV., THE STANLEY WORKS, 1300 Corbin Ave., New Britain, Conn.

Steel strapping, Steel strapping tools, Corrugated fasteners.

Calif., Rivera — 7141 So. Paramount Blvd. RA 3-9743
Calif., San Francisco—681 Market St. YU
6-5914
Wash... Seattle — 105 Second St. No. MA

Z-9/13 Representatives

Ariz., Phoenix—Charles Bergen, c/o E. D.
Flournoy Co., P. O. Box 11187

Colo., Denver—Murray Sales Co., 16 Wazee

Market. KE 4-5296

N. Mex., Albuquerque—Charles McDonald,
c/o E. D. Flournoy Co., P. O. Box 68.

STAR IRON & STEEL CO., 435 E. 11th St., Tacoma 2, Wash. MA

Cranes (charging and drawing, gantry, hand power, iib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, I beam overhead, monorali overhead). Grapples.

STAR MACHINE & TOOL CO., 201 S. E. Sixth St., Minneapolis 14, Minn. Hydraulic cranes (portable floor and truck mounting, hand and electric pump operated).

Calif., Berkeley—Herb Ayers, 2737 Garber St. TH 5-2415 Calif., El Monte—L. W. Swenson, 517 Lau-Calif., El Monte—L. W. Swenson, 517 Laurelhurst Dr.
Calif., Los Angeles — Fornaciari Co., 5350
E. Washington Blvd. AN 9-7595
Colo., Denver — Hendrie & Bolthoff, 1635
17th St.
Ore., Portland — Friction Sales Co., 1640
N. W. 14th Ave.
Utah, Salt Lake City — M. H. Miller Co.,
1707 So. 15th E.

STEARNS ELECTRIC CORP., 120 No. Broadway, Milwaukee 2, Wis.

Electro-Magnetic clutches, Brakes, Clutch-Brake combinations.

Calif., Los Angeles — Smallcomb Electric Co., 1120 So. Main St. RI 7-0221
Calif., Oakland — California Electric Co., 3015 Adeline St. BE 9-5174
Calif., San Diego—Frank W. Sloan Co., 102
So. 19th St. BE 9-5174
Calif., San Francisco — Buzzell Electric Works, 130 Eighth St. HE 1-5526
Colo., Denver — Toncray Equipment Co., 1732 Blake St. CH 4-1102
Ore., Portland—C. E. Riggs, Inc., 422 N. W. Eighth. CA 6-3286
Wash., Seattle—John H. Marvin Co., Inc., 422 First Ave. W. AT 4-9331
Wash., Seattle—C. E. Riggs, Inc., 408 Occidental Ave. MA 3-5707

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STEPHENS-ADAMSON MFG. CO., 85 Ridgeway Ave., Aurora, III.

Belting (conveyor), Car Pullers, Centrifugal loaders for bulk material, Conveyors (apron, automatic, bag, bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, screw, slat, vertical, vibrating, zipper, spe-

cial and other), Elevators (belt, bucket, continuous flow), Hoists (bucket, electric, skip), Pulleys (con-vayor), Rollers (convayor), Winches and Wind-lasses.

Calif., Los Angeles—2227 E. 37th St. LU 3-1511 Calif., San Francisco—145 Mission St. EX Calif., San Francisco—145 Mission St. EX 2-4218 Wash., Seattle — 909 Joseph Vance Bldg. MU 2-3962

Representatives

Ariz., Phoenix—Semon Bearing & Supply Co., 325 N. Third Ave.
Colo., Denver—E. N. Murray, 320 Denver Club Bldg. HA 4-1080

Calif., Los Angeles—Degen-Fiege Co., 4559
E. Shiela St.
Utah, Salt Lake City—C. H. Spencer, P. O. Box 1054

STOKER, H. L., CO., 111 So. College Ave., Claremont, Calif.

Bag packers for filling valve, open mouth bags and drums; Bag settler for settling material with a reduction in bag sizes as the primary purpose.

Calif., San Francisco—Industrial Vibrator Co., 1485 Bayshore Blyd. JU 4-3000 Canada, Vancouver, B. C.—General Sales Syndicate of Canada, 470 Graville St. Colo., Denver—Byerrum Engineering Sales, 6025 E. First Ave. EA 2-5865 Ore., Portland—Fred G. Greaves Co., 400 Concord Bldg. CA 8-9211 Wash., Seattle—Fred G. Greaves Co., 418 Eighth Ave. No. MA 3-0680

STORAGE PRODUCTS CORP., 4400 Oakton St., Skokie, III.

Fast assembled boltless, adjustable pallet racks, drive-in racks, cantilever racks, palletless racks, drive-in decking.

decking.

Representatives

Calif., Los Angeles—Speedrack, 7260 Melrose. WE 4-3313

Calif., Pomona—L. J. Sanderson, P. O. Box 56. LY 9-8405

Calif., San Diego — Kenneth Smith, 1670 Fourth Ave. BE 3-6143

See advertisement on page 66

Calif., San Francisco—James A. Old & Son, 325 Fifth St. SU 1-1100
Colo., Denver—Murray Sales Co., 16 Wazee Market. KE 4-5296
Ore., Portland—Air Mac, Inc., 1111 S. E. Grand Ave. BE 4-6524
Wash., Seattle—Air Mac, Inc., 3838 4th Ave. So. MU 2-3388
Wash., Spokane—Air Mac, Inc., P. O. Box Wash., Spokane—Air Mac, Inc., P. O. Box 1125. KE 5-2005

ST. REGIS PAPER CO., see GUMMED PRODUCTS CO., a div.

STRATTON EQUIPMENT CO., 2030 E. 105th St., Cleveland 6, Ohio

Portable floor cranes, Stacker units, Fork lifts, Tailgate loaders, Garbage loaders, Drum, lifter and tipper-stacker units.

Representatives
Calif., Arcadia—George C. Clinger Co., 524
Columbia Rd.
Calif., Los Angeles—Lambert Co., 1202 E.
Olympic
Calif., Los Angeles — Stanley E. Morris,
5584 Alhambra Ave.
Calif., San Diego—Equipment Engineering
Co., 1470 India St.
Calif., San Francisco—Heil Equipment Co.,
999 16th St.
Calif., South Gate — Hydraulic Tool &
Equipment Co., 10825 Sessler St.

STREETER-AMET CO., Grayslake, III.

Branch Office Calif., Los Angeles—10357 W. Pico. BR 2-3723

SULLIVAN, ED, EQUIPMENT ENGI-NEERING SERVICES, 672 So. Lafayette Park Pl., Los Angeles 57, Calif. DU 7-8521

Baskets (wire), Bins (wire), Tote boxes (steel), Racks (pallet, storage, other), Shelving, Waste scrap handling systems, Detachable containers, Balors.

SWEET, H. C., CO., 56861 Grand River Ave., New Hudson, Mich. Line marking equipment.

Representatives
Calif., Oakland—Allied Paper & Janitorial Calif., Oakland—Allied Paper & Janitorial Supplies.
Calif., South Gate—Cost Reduction Equipment Co., 5200 Chakemoo St.
Calif., Walnut Creek—Diablo Rental, 1996
No. Main St. Portland-Ken R. Humke, 207 N. W. 14th St.

SWING-SHIFT MANUFACTURING CO., P. O. Box 111, Longview. Wash.

Trucks (electric fork, gasoline fork), Swinging and Shifting hydraulic fork control for industrial lift trucks. Company also manufactures a line of Side Shifting Units for lift trucks.

Representatives
(Sold and serviced through all Western fork lift truck distributors).

SYNTRON CO., 875 Lexington Ave., Homer City, Pa.

Conveyors (vibrating), Vibrators.

Ariz., Tucson—R. W. Bartley, 2144 No. Campbell Ave. EA 5-2291
Calif., Los Angeles—Syntron Los Angeles Sales Co., 8413 State St. LO 7-1457
Calif., San Francisco—Syntron San Francisco Sales Co., 59 30th St. AT 8-1162
Colo., Denver—Krippner & Polley, 1166
Elati St. AL 5-1059
Utah, Salt Lake City—Syntron Salt Lake
City Sales Co., 713 Kensington Ave. HU
5-1231
Ore., Portland, Syntron 5-1231 Ore., Portland—Syntron Seattle Sales Co., 430 S. E. 33rd Ave. BE 2-5687 Wash., Seattle—Syntron Seattle Sales Co., 15223 Eighth Ave. So. CH 3-6250

TALLER & COOPER, INC., 75 Front St., Brooklyn 1, N. Y.

Branch Office

Scales (automatic, counting, warehouse).

Calif., Menlo Park-481 La Mesa Dr. Representatives
Calif., Los Angeles—American Electronics, Inc., 655 W. Washington Blvd.
Calif., Los Angeles—F. Somers Peterson Co., 1501 Maple Ave. RI 9-6151
Calif., San Francisco—F. Somers Peterson Co., 157 13th St. MA 1-2255
Colo., Denver—Peterson Co., 4949 Colorado Blvd.

TAYLOR-DUNN MFG. CO., 2114 W. Ball Rd., Anaheim, Calif. KE 5-6021 Electric platform trucks, Personnel carriers, Tota trucks, Stock chasers, Fire trucks, Ambulances, Order pickers.

Calif., Perkins—Time Savers, Inc., P. O. Box 107. GL 2-0237
Calif., San Diego—C. S. Goodale Co., 843
India St. BE 3-5410 India St. BE 3-5410
Calif., San Francisco—Elder & Co., 3-333
Seventh St. UN 1-5480
Ore., Portland—Oregon Handling Equipment, 2949 N. W. St. Helens Rd.
Wash., Seattle—Cascade Handling Equipment Co., 1741 First Ave. So. MA 2-7069

TECHNIBUILT CORP., 905 Air Way, Glendale 1, Calif.

Baskets (wire), Carts (hand and push, nesting wire basket), Casters, Scales (counting, portable, ware-house), Trucks (factory and warehouse, hand), Wheels (hand truck, rubber tired), Electronic

Calif., San Carlos—715 Old County Rd. I 3-9407 Calif., Glendale—905 Air Way. CH 5-7521 San Carlos—715 Old County Rd. LY

Ore., Portland—Birkenwald Co., 310 N. W. Fifth Ave. CA 8-1342
Wash., Seattle — Birkenwald, Inc., 2515
Fourth Ave. EL 6500
Wash., Spokane—Birkenwald, Inc., E. 4230
Mission Ave. MA 1818

TEMPLETON, KENLY & CO., 16th and Gardner Rd., Broadview, III. Jacks (hydraulic, lift, screw, other).

THERMOID DIV. - TOWMOTOR CORP.

Calif., Concord—Wm. H. Zepp, 720 Bancroft Rd. YE 5-0687 Calif., Los Angeles—c/o William S. Pine, 1635 E. 22nd St. RI 9-7419

Calif., Los Angeles—C/o William S. Pine, 1635 E. 22nd St. RI 9-7419

Representatives

Ariz., Douglas—Phelps-Dodge Corp. Ariz., Phoenix—Arizona Hardware Co., 47 E. Jackson

Ariz., Phoenix—Pratt-Gilbert Hardware Co., 701 So. Seventh St.

Calif., Bakersfield — Hopper M a c h i ne Works, Inc., 301 28th St.

Calif., Long Beach—American Wholesale Hardware Co., 1500 W. Anaheim

Calif., Los Angeles—Bethlehem Supply Co. of Calif., P. O. Box 3128

Calif., Los Angeles—Bethlehem Supply Co. of Calif., P. O. Box 3128

Calif., Los Angeles—California Hardware Co., 500 E. First St.

Calif., Los Angeles—Ducommun Metals & Supply Co., 4890 So. Alameda St.

Calif., Los Angeles—Fornaciari Co., 5350 E. Washington Blvd.

Calif., Los Angeles—Howard Supply Co., 4900 Santa Fe Ave.

Calif., Los Angeles—Oil Well Supply Co., 4900 Santa Fe Ave.

Calif., Los Angeles—Go., Tucker & Son, 455 E. Third St.

Calif., Los Angeles—Union Hardware & Metals Co., 5555 Ferguson Dr.

Calif., Sacramento—L & G. Specialties, 207 O St.

Calif., Sacramento—Thomson Diggs Co., 3rd and R Sts.

Calif., San Diego—Gould Hardware & Machinery Co., 2212 Main St.

Calif., San Diego—Gould Hardware & Machinery Co., 2212 Main St.

Calif., San Francisco—Edward R. Bacon Co., 2101 Folsom St.

Calif., San Francisco—Baker & Hamilton, 700 Seventh St.

Calif., San Francisco—C. H. Bull Co., 115 Tenth St.

Calif., San Francisco—Gilmore Supply Co., 821 Folsom St.

Calif., San Francisco—Baker & Hamilton, 700 Seventh St. Calif., San Francisco—C. H. Bull Co., 115 Tenth St. Calif., San Francisco—C. H. Bull Co., 115 Tenth St. Calif., San Francisco—Gilmore Supply Co., 821 Folsom St. Calif., San Francisco—A. J. Glesener Co., 975 Bryant St. Calif., San Francisco—A. J. Glesener Co., 975 Bryant St. Calif., Torrance—National Supply Co. of California, 1919 Williams St. Calif., Torrance—National Supply Co. of California, 1524 Border Ave. Colo., Denver—Mine & Smelter Supply Co., 3890 Race St. Idaho, Borke—Intermountain Equipment Co., Broadway and Myrtle Sts. Idaho, Pocatello — Intermountain Equipment Co., Broadway and Myrtle Sts. Idaho, Pocatello — Intermountain Equipment Co., 210 N. Fourth Ave. Idaho, Wallace—Coeur d'Alene Hardware & Foundry Co. Mont., Billings—Great Northern Tool & Supply Co., 2224 Minnesota Ave. Mont., Butte—Hall-Perry Machinery Co., 802 E. Iron St. Mont., Butte—Montana Hardware Co., 823 So. Montana St. Mont., Great Falls—Carl Weissman & Sons. Inc., 300 Third Ave. Mont., Kalispell — Westmont Tractor & Equipment Co., 55 Third Ave., N. E. Nev., Reno — Sierra Machinery Co., 307 Morrill Ave.
N. Mex., Albuquerque—Contractors Equipment & Supply Co., 707 Broadway, N.E. N. Mex., Albuquerque—Harry Cornelius Co., 1510 Second St. N. W.
N. Mex., Albuquerque—J. Korber & Co., 200 Second St., N. W.
N. Mex., Albuquerque—Lively Equipment Co., 2601 4th St. N. W.
N. Mex., Artesia—Union Supply Co., Inc. N. Mex., Carlsbad—Union Industrial Corp., 112 E. Mermod St.

N. Mex., Artesia—Allied Supply Co., Box 21.

N. Mex., Artesia—Union Supply Co., Inc. N. Mex., Carlsbad—Union Industrial Corp., 112 E. Mermod St.

Ore., Astoria — Fisher Brothers Co., 1210 Marine Dr.

Ore., Corvallis — Roeser's Hardware Co., 341 So. Second St.

Ore., Portland—J. E. Haseltine & Co., S. W. Second Ave. and Ash St.

Ore., Portland—Northern Wholesale Hardware Co., 305 N. W. Glisan St.

Utah, Salt Lake City—Industrial Supply Co., 121 Social Hall Ave.

Utah, Salt Lake City—Mine & Smelters Supply Co., 121 W. Second So. St.

Wash., Seattle—Glenn Carrington Co., 91 Columbia St.

Wash., Seattle—Glenn Carrington Co., 91 Columbia St.

Wash., Seattle—Grambell Industrial Supply Co., 3433 Airport Way.

Wash., Seattle—Pactific Ry. Supply Co., 2773 13th St. S. W.

Wash., Seattle—Peterson Wholesale Hardware Co., 5422 Shilshole Ave.

Wash., Seattle—Seattle Hardware Co., 501 First Ave.

Wash., Seattle—Star Machinery Co., 241 Lander St.

Wash., Seattle—Star Machinery Co., 241 Lander St.

Wash., Seattle—Vukon Equipment, Inc., 327

Wash., Seattle — Star Buck. Lander St. Wash., Seattle—Yukon Equipment, Inc., 327 Colman Bldg.

Wash., Spokane — J. E. Haseltine & Co., 1101 No. Division Wash., Spokane — Intermountain Equip-ment Co., 611 E. Sprague Ave. Wash., Spokane—Towne Equipment Co., 622 No. Montor St. Wash., Tacoma—Hunt & Mottet Co., 2112 Pacific Ave.

Wash., Tacoma—Hunt & Pacific Ave.
Pacific Ave.
Wash., Yakima—Yakima Hardware Co., 226

THACKER-HARRIS CO., 2130 Laura Ave., Huntington Park, Calif. LU

Shipping containers (corrugated)

THERMOID DIV., H. K. PORTER CO., INC., Tacony & Comly Sts., Philadelphia 24, Pa.

Belting (conveyor, elevator, endless), Slings (belt).

Calif., Los Angeles-1100 So. Santa Fe Ave. TR 8603 alif., San Francisco—544 Second St. YU Calit., San Francisco—344 Second St. 10 2-4141 Colo., Denver—724 W. Colfax St. CH 4-2300 Ore., Portland—3939 N. W. St. Helens Rd. CA 2-9765 Utah, Nephi—Thermoid Western. Phone 424W

Representatives

Calif., North Hollywood — J. W. Beard, 11723 Otsego St. ST 7-6174
Calif., So. San Francisco—E. J. Gehres, 129
Sylvester St.
Calif., So. San Francisco—O. J. Sand, 724
Palm Ave. JU 3-5411
Calif., West Covina—J. W. Minnock, 1258
So. Butterfield Rd. ED 2-7340
Calif., West Covina—J. L. Pelmear, 542
So. St. Malo Calif., West Covina—J. L. Pelmear, 542 So. St. Malo Colo., Denver—Roy Wannamaker, 7199 W. Sixth Ave. BE 7-7278 Colo., Thornton — E. O. Samuelson, 9211 Myrna Pl. Myrna Pl.
Ore., Portland—Gordon Sodorff, 8601 No.
Hartman Ave. UN 4658
Utah, Salt Lake City—R. H. Hancock, 957
So. Eighth St. EL 9-2579
Wash., Seattle—H. W. Hobbs, 3021 E. 135th
St. EM 0024
Wash., Seattle—R. J. Labyak, 3438 42nd
Ave. S. W. AV 8301

THERN MACHINE CO., 3760 W. Fourth St., Winona, Minn. Hoists (chain, lever), Truck (hand lift), Winches and Windlasses.

Representatives

Calif., Oakland—Denaham Sales Service, 293 26th St. Utah, Ogden—H. S. Loeke & Associates, P. O. Box 1282

THEW SHOVEL CO., E. 28th and Fulton Ave., Lorain, Ohio

Power shovels, Cranes, Clamshells, draglines, Hoes, Moto-cranes, Self-Propelleds.

Representatives

Ariz., Phoenix — Lee Redman Equipment Co., 610 So. 19th Ave.
Calif., Los Angeles—Santa Fe Equipment Co., 3000 Santa Fe Ave.
Calif., San Francisco — Coast Equipment Co., 444 Eighth St.
Idaho, Boise—Southern Idaho Equipment Idaho, Boise—Southern Idaho Equipment Co.
Idaho, Idaho Falls—Southern Idaho Equipment Co., No. Yellowstone Hwy.
Idaho, Twin Falls—Southern Idaho Equipment Co., 129 Washington St. No.
Mont., Billings—Nash-Davis Machinery Co.
Mont., Gozeman — Nash-Davis Machinery Co.
Mont., Glasgow—Tractor & Equipment Co.
Mont., Glasgow—Tractor & Equipment Co.
Mont., Glasgow—Tractor & Equipment Co.
Mont., Kalispell—Mountain Tractor Co.
Mont., Lewistown—Central Machinery Co.
Mont., Lewistown—Central Machinery Co.
Mont., Miles City — Tractor & Equipment Co.
Mont., Miles City — Tractor & Equipment Co.

Co.

Mont., Missoula — Mountain Tractor Co.,
1345 W. Broadway
Mont., Sidney—Tractor & Equipment Co.
Nev., Reno—General Equipment Co.
Ore., Eugene—Interstate Tractor & Equipment Co.,
1041 Hwy. 99-N.
Ore., Portland—Interstate Tractor & Equipment Co., 2855 N. W. Front Ave.

Tex., El Paso (serves part of N. Mex.)—Rio Grande Machinery Co., 1700 E. Paisano Dr. Utah, Salt Lake City—Atlas Equipment Co., 1598 So. 2nd W. Wash., Seattle—Hatten Machinery Co., 3433

Fourth Ave.

Fourth Ave.

Wash. Spokane—Andrews Equipment Service, 126 So. Walnut St.

Wyo., Casper—Wortham Machinery Co.

Wyo., Cheyenne—Wortham Machinery Co.
517 W. 17th St.

Wyo., Greybull — Nash-Davis Machinery
Co.

Wyo., Sheridan—Wortham Machinery Co. Wyo., Rock Springs—Wortham Machinery Co.

THOR POWER TOOL CO., 175 N. State St., Aurora, III.

Los Angeles-6200 Slauson Ave. RA Calif., Los Angeles—6200 Slauson Ave. RA 3-3191 Calif., San Francisco—315 S. Van Ness Ave. UN 1-2045 Colo., Denver—2704 W. Eighth Ave. AL 5-3668 Wash., Seattle-414 8th Ave., No. MU 0591

TIER-RACK CORP., Fullerton Bldg., 122 No. Seventh St., St. Louis 1, Mo. Portable pallet rack equipment (snap on and free standing), Pallet guards for wooden pallets.

Representatives

Ariz., Phoenix—Western Specialty Co., P.O.
Box 6575
Calif., Los Angeles—Select Pallet Co., 4245
Sheila St.
Calif., So. San Francisco — Hamerslag
Equipment Co., 110 Freeway Blvd.
Ore., Portland—D & M Moulding Co., 11320
N. E. Marx St.

TON-TEX CORP., 247 Pearl St., N. W., Grand Rapids 2, Mich.

Conveyor belting for handling all types of prod-

Calif., San Jose—1180 Auzerais Ave. CY 3-3230

See advertisement on page 154

TOTE SYSTEM, INC., 700 So. Seventh St., Beatrice, Neb.

Tote bins, Tote boxes.

Representative
Calif., Pasadena—Empire Engineering Co.,
385 E. Green St. RY 1-6178

TOWMOTOR CORP., 1226 E. 152nd St., Cleveland 10, Ohio

Yard cranes, Tractors (diesel, gasoline warehouse), Trucks (bag, barrel, drum, box type, die handling, elevating and lifting, factory and warehouse, diesel fork, gasoline fork, hand motorized, gasoline lift, hand-electric lift, pallet, sheet handling, skid handling, other).

Representatives
Calif., Fresno—Valley Fork Lift Sales Co., 2424 So. Railroad Ave.
Calif., Oakland—T-G Forklift Sales, 699
Fourth St.

See advertisement on page 25

Calif., San Jose—T-G Forklift Sales, 1230 No. 13th St. Colo., Denver—Case Material Handling Co., 2855 W. 8th Ave. Ore., Eugene—Air-Mac, Inc., 1942 W. 11th Ore., Portland — Air-Mac, Inc., 1111 S. E. Grand

Grand
Utah, Ogden—The Horsley Company, 2416
Grant Ave.
Wash., Seattle — Air-Mac, Inc., 3838 4th
Avenue, So.
Wash., Spokane — Air-Mac, Inc., E. 3710
Trent Ave.
Wash., Tacoma—Air-Mac, Inc., 1003 Washington Bldg.

ington Bldg. Jash., Yakima — Air-Mac, Inc., 2525 So.

TRACTOMOTIVE CORP., County Line Rd., Deerfield, III.

Front end wheel loaders (Tractoloaders).

Calif., Oakland—Neal Rasmussen, 400 Santa Clara Ave.
Ore., Beaverton—William D. Rankin, 4240 S. W. 110th St.

Ariz., Phoenix—Neil B. McGinnis Equipment Co., 500 So. Central Ave. AL 8-5391 Calif., Bakersfield — San Joaquin Tractor Co., California Ave. & Hwy. 99. FA 4-4517 Calif., Berkeley—West Coast Engine & Equipment Co., 1081 Eastshore Hwy. LA Calif., Eureka—Trinite. Equipment Co., 1981 Eastshore Hwy. LA 5-2261
Calif., Eureka—Trinity Tractor Co., 3408
Jacobs Ave. HI 3-5041
Calif., Los Angeles—Shaw Sales & Service
Co., 5100 Triggs St. AN 1-7141
Calif., Redding—Shasta Truck & Equipment Sales, P. O. Box 985. Phone 47
Calif., Sacramento — Industrial Tractor
Sales, 903 Del Paso Blvd. WA 5-8325
Calif., San Diego—Construction Machinery
Co., 2175 Newton Ave. BE 9-4143
Colo., Denver—Power Equipment Co., 3440
Brighton Blvd. KE 4-4221
Idaho, Boise—Southern Idaho Equipment
Co. of Boise, Inc., 204 E. Myrtle. Phone
3-6409
Idaho, Idaho Falls—Southern Idaho Equip-Co. of Boise, Inc., 204 E. Myrtle. Phone 3-6409
Idaho, Idaho Falls—Southern Idaho Equipment Co., 2208 No. Yellowstone. JA 2-0060
Mont., Billings—Seitz Machinery Co., 420
No. 24th St. Phone 2-2103
Mont., Missoula — Mountain Tractor Co., 1645 W. Broadway. Phone 6-6651
Nev., Elko — A-D Machinery Co., 251 W. Commercial. RE 8-3103
Nev. Reno—Reno Equipment Sales Co., 1510 W. Fourth St. Phone 2-7025
N. Mex., Albuquerque—Harry Cornelius Co., 1510 Second St. Phone 3-1776
Ore., Medford—Haupert Tractor Co., 3610
No. Pacific Hwy. SP 3-5383
Ore., Portland — Wood Tractor Co., 5241
N. E. 82nd Ave. AT 8-5521
Ore., Springfield—Timber Tractor Co., 2600
Main St. RI 7-2724
Utah, Salt Lake City—Cate Equipment Co., 1132 So. Fourth W. St. Phone 9-2021
Wash., Seattle — Pacific Hoist & Derrick Co., 3200 Fourth Ave., So. E. 1860
Wash., Spokane—American Machine Co., 1026 W. Broadway. FA 2591
Wyo., Casper — Studer Tractor & Equipment Co., P. O. Box 779. Phone 2-5381

TRANSITIER TRUCK CO., 5475 No. Lagoon Ave., Swan Island, Portland 11, Ore.

Trucks (gasoline fork).

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Trecks (gasoline fork).

Representatives

Ariz., Phoenix—Southwest Equipment Co., 2242 E. Washington
Calif., Bakersfield—Inland Equipment Co., Hwy. 99 at Olive Dr.
Calif., Los Angeles—McKinley Equipment Co., 1895 Main St.
Calif., San Diego—Kenton Equipment Co., 1895 Main St.
Calif., So. San Francisco — Hamerslag Equipment Co., 110 Freeway Blvd.
Colo., Denver — L. G. Rathbun Co., 1414 Sixteenth St.
Nev., Las Vegas—Clark County Wholesale Mercantile Co., 595 So. Main St.
N. Mex., Albuquerque—Southwest Equipment Co., 2650 Bridge Blvd., S. W.
Ore., Portland—Lift Truck Parts & Service, 736 N. E. Broadway
Wash., Seattle — Carrington Co., 91 Columbia
Wash., Seattle—Masterson's Equipment Wash., Seattle — Carrington Co., 37 Columbia
Wash., Seattle — Masterson's Equipment
Supplies, Inc., 1452 Elliott Ave. W.
Wash., Spokane—Andrews Equipment Service of Washington, Inc., W-4520 Trent

TRANS-PAK, INC., 948 American St., San Carlos, Calif. LY 3-2109 Boxes, Packaging, Pallets, Racks, Skids, Strapping.

TRI-METAL LADDER CO., Lincoln Hwy., Berwyn, Pa. Steel safety ladders.

Representative

Ariz., Phoenix—Kistler Industrial Service,
902 So. Central Ave.

TRI - STATE ENGINEERING CO., see CARGOTAINER DIV.

TROJAN METAL PRODUCTS, 735 E. Gage Ave., Los Angeles 1, Calif. Tote boxes, Carts (hand and push, other), Pallets, Skids, Tables (portable), Trailers (factory and ware-

TUBULAR STRUCTURES CORP. OF AMERICA, 2960 Marsh St., Los Angeles 39, Calif.

Elevators (portable tiering), Hoists (hydraulic, portable).

Representatives

Ariz., Phoenix—Waco Scaffold & Equipment Co., 2405 E. Jackson.

Calif. Bakersfield—B. I. Skrable Co., 1800
A. So. Chester.
Calif., Fontana — Fontana Scaffolding & Equipment Co., 8922 Beech St.

Calif., Fresno — Ray J. Wayte Co., 1869
Hedges Ave.
Calif., Garden Grove—Bryco Sales, Inc., 8962 Garden Grove Ave.
Calif., Los Angeles—Southland Scaffold & Equipment Co., 3152 Riverside Dr.
Calif., San Diego — Tru-Bell Scaffold & Equipment Co., 5960 Fairmont Ext.
Calif., San Francisco—Laurence Myers & Co., 61 Bluxome St.
Calif., Stockton—Waco Scaffold & Equipment Co., 2092 S. El Dorado St.
Nev., Las Vegas—Inland Service & Supply Corp., 1600 Industrial Rd.
Nev., Reno—Ready Mix Concrete Co., Box 1591
N. Mex., Albuquerque—Franks Supply Co. 1591
N. Mex., Albuquerque—Franks Supply Co., 2511 First, S. W.
Ore., Portland—Scaffold & Equipment Co., 4519 S. E. Johnson Creek Blvd.
Utah, Salt Lake City—Oscar E. Chytraus Co., 937 S. W. Temple.
Wash., Spokane—Ferris Equipment Co., E. 3823 Trent Ave.

TULSA WINCH DIV., VICKERS, INC., 815 E. First St., Tulsa 20, Okla. Winches and Windlasses, Power take-offs.

Winches and Windlasses, Power take-offs.

Representatives
Ariz., Phoenix—Welch Mfg. Co., 533 W.
Jefferson. AL 8-0276
Calif., Los Angeles—Standard Auto Body
Co., 4900 So. Soto St. LO 8-1471
Calif., Lynwood—Rankin Brothers, 11090
So. Alameda. NE 6-1929
Calif., San Francisco—Modern Vehicle Co.,
2044 Bryant St. AT 2-7414
Colo., Denver—The Winter Weiss Co., 2201
Blake St. MA 3-6233
Idaho, Boise—The Lang Co., 420 No. Curtis
Rd. Phone 8311-W
Mont., Great Falls—Smith Equipment Co.,
820 Ninth St. No. Phone 2-1713
Mont., Kalispell—Industrial Supply Co.,
175 N. E. Railroad St. Phone 5900
N. Mex., Albuquerque—Timpte Bros., Inc.,
4300 Second N. W. Phone 4-3444
N. Mex., Albuquerque—Timpte Bros., Inc.,
4300 Second N. W. Phone 3-3161
Ore., Eugene — Western Equipment Co.,
1360 W. First St. EU 4-4265
Ore., Portland—Western Equipment Co.,
2244 N. W. Savier St. AT 8-4128
Utah, Salt Lake City—The Lang Co., First
So. and Second W. DA 8-3341
Wash., Seattle—Transport Trailer & Equipment
Co., 3400 Sixth Ave. So. MU 2226
Wash., Spokane — Andrews Equipment
Service, 4620 E. Trent Ave. KE 5-1604
Wyo., Casper—Emrick & Hill Engine &
Equipment Co., 1701 E. Yellowstone.

TUTHILL PUMP CO., 939 E. 95th St., Chicago 19, III.

Pumps (rotary).

Representatives

Calif., Los Angeles — Wagner Hydraulic
Equipment Co., 10814 Santa Monica Blvd.
Calif. Santa Santa Monica Blvd. BR 2-2091
Calif., San Francisco—E. D. Sweetland Co., 151 Mission St. GA 1-2663
Calif., San Francisco—Westco Pump Sales Co., 85 Industrial St. VA 6-5104
Wash., Seattle—Atlas Equipment Co., 620
Maynard Ave. MU 6222
Wash., Seattle — E. D. Sweetland Co., White-Henry-Stuart Bldg. MA 2-1015

UHRDEN, INC., 508 Grant St., Dennison, Ohio

Cranes (hand power), Dumpers, Hoists (crane, hand, hydraulic, portable), Trucks (elevating or lifting, factory and warehouse, electric for, hand, hand-electric lift, hydraulic lift, power-driven lift, skid handling).

Representatives
Ariz., Phoenix.—Kinney Materials Handling
Calif., Los Angeles.—Irving King Co.
Calif., Los Angeles.—James P. Kinney & Co.
Calif., San Diego—Hoffer Engineering Co.
Calif., San Francisco—Stryco.
Calif., So. San Francisco—Hamerslag.
Colo., Denver—Murray Sales.
Ore., Portland—Oregon Handling.
Utah, Ogden—Horsley Co.
Wash., Seattle—Burleigh Co.

UNION ASBESTOS & RUBBER CO., Sturdi-Bilt Material Handling Div., 332 S. Michigan Ave., Chicago 4,

Drive-Thru racks, Die racks, Barrel racks, Skid racks, Bar stock racks, Bulk bins, Lightweight bulk storage racks. Representativos

Ariz., Phoenix—Naumann Lift Trucks, 2308 S. 11th Ave. AL 8-8951 Calif., Bakersfield — Gray Lift, Inc., 1817 "H" St. FA 2-0953 Calif., Fresno—Gray Lift, Inc., 1905 Mary St. AM 8-6256 Calif., Los Angeles—M. E. Canfield Co., 419 E. Third St. MA 6-6606 Calif., Los Angeles—Green Penny Co., 4180 Noakes St. AN 8-3321 Calif., Los Angeles — Hugo Ries, 429 S. Western Ave. DU 1-1754 Calif., Oakland — Green Penny Co., 2211 San Pablo Ave. GL 1-8555 Calif., San Diego—Winn Supply Co., 1676 Main St. BE 3-3106 Idaho, Boise—Arnold Machinery Co., 1302 Broadway. Phone 3672 Ore., Portland — Oregon Handling Equipment, 2949 N. W. St. Helens Rd. CA. 8-4196 8-4196 8-4196 Utah, Salt Lake City — Arnold Machinery Co., 433 W. 2nd So. Phone 22-5631 Wash., Seattle—Cascade Material Handling, 1741 - 1st Ave. So.

UNION CHAIN & MFG. CO., Edgewater Ave., Sandusky, Ohio

Chains, Conveyors (apron, bucket, chain or link, drag, flight, slat), Elevators (bucket), Wheels (conveyor).

Ore., Portland-208 S. W. Stark St. CA 8-9211

Representatives Calif., Los Angeles—American Chain & Gear Co., 2451. E. 57th St. LU 1-7215
Calif., San Francisco—Charles A. Fowler Co., 979 Bryant St. UN 3-5010
Colo., Denver—Allen Bearings Supply Co., Inc., 4965 Jackson St. FL 5-3563
Ore., Portland—Munnell & Sherrill, Inc., 1163 N. E. 63rd Ave. AT 1-0021
Wash., Seattle — Bearing Engineering & Supply Co., 2548 Airport Way. MA 2744

UNION METAL MFG. CO., THE, 1432 Maple Ave. N. E., Canton 5, Ohio. GL 4-6111

All steel corrugated skid platforms, boxes, skid boxes, pallets, racks, Work-O-Matic system.

Representatives Representatives

Ariz., Phoenix — Kistler Ind. Service, 902
So. Central Ave. AL 2-7217
Calif., Los Angeles—W. T. Billard, Inc., 734
E. Third St. Ma 4-2659
Calif., Oakland—E. C. Buehrer, Assoc., Inc., 253 Fourth St. TE 6-2082
Colo., Denver — Material Handling Equip.
Co., 1795 Sheridan Blvd. BE 7-0433
Utah, Salt Lake City—Modern Equip. Co., 32 W. Second So. St. DA 2-5887
Wash., Seattle—E. C. Hanselpacker & Co., 92 Battery St. EL 0580

UNION WIRE ROPE CORP., 21st and Manchester Ave., Kansas City 26,

Slings (wire rope), Wire Rope.

Branches
Calif., No. Sacramento—903 Del Paso Blvd.
WA 5-5124
Colo., Denver—3920 Grape. AC 2-1110
Ore., Portland—1637 N. W. 14th Ave. CA 7-9475

UNISTRUT PRODUCTS CO., 933 Washington Blvd., Chicago 7, III. Racks (pallet, storage, other).

District Office
Calif., Los Angeles — 612 No. Sepulveda
Blvd. GR 2-2540

Blvd. GR 2-2540

Representatives

Ariz|{ Phoenix—Western Specialty Co., 18 E. Lincoln St. AL 4-1866

Calif., Los Angeles—Glennmart Co., 6440 E. Corvette St. RA 3-8221

Calif., Sacramento—A. W. Herron Co., 215—12th St. Gl 3-4621

Colo., Colorado Springs—Landes, Zachary & Peterson, P. O. Box 1488. ME 3-4801

Colo., Denver—Landes, Zachary & Peterson, 601 So. Jason. SH 4-1311

Mont., Helena—Builders Supply Co., P.O. Box 176. HI 2-2520

N. Mex., Albuquerque—Landes, Zachary & Peterson, 4900 Domingo Rd., N. E.

Cre., Portland—Brower Co., 1633 N. W. 21st Ave. CA 8-3494

Utah, Salt Lake City—Pace-Turpin & Co., 726 So. Third W. St. DA 2-5595

Wash., Seattle—Brower Co., 114 Virginia St. MU 2-0464

UNIT CRANE & SHOVEL CORP., 6411 W. Burnham St., Milwaukee 19, Wis. Clamshells, Draglines, Shovels, Trenchoes, Mag-nets, Cranes (crawler, mobile or truck mounted), ½ to ¾ yard excavators, Cranes up to 40 ton (gasoline or diesel).

Ariz., Phoenix — O. S. Stapley Co., 723 Grand Ave. AL 3-2121 Calit., Los Angeles—Garlinghouse, Fremon & Co., 6046 E. Washington Blvd. RA 3-& Co., 6046 E. Washington Blvd. RA 3-8688
Calif., Oakland — Spears-Wells Machinery Co., 1832 Ninth St. GL 1-3432
Calif., Redding—Shasta Truck & Equip. Sales, So. 99 Hwy. Phone 47
Calif., Sacramento—Herman Combs, 4440
Cabrillo Way. GL 7-9857
Calif., Sacramento — Industrial Tractor Sales, 903 Del Paso Blvd. WA 5-8525
Colo., Denver—Tudor Equipment Co., 6198
Colorado Blvd. AT 8-1513
Mont., Billings—Seitz Machinery Co., Inc., 420 No. 24th St. Phone 2-2103
Mont., Great Falls—Seitz Machinery Co., Inc., 1107 Smelter Ave. Phone 2-6996
Nev., Reno — Reno Equipment Sales Co., 1510 W. Fourth St. FA 2-7025
Ore., Portland—Manitou Equipment Co., 3251 N. W. Front Ave. CA 7-3418
Utah, Salt Lake City—Rasmussen Equipment & Supply Co., 1960 So. Second W. HU 5-5478
Wash., Seattle—Manitou Equipment Co., 5602 First Ave. So. PA 5-2010 HU 5-5478
Wash., Seattle-Manitou Equipment Co.,
5602 First Ave., So. PA 5-9010
Wash., Spokane-Inland Diesel & Machinery Co., E. 3511 Trent Ave. KE 5-2434

UNIT MANUFACTURING CO., 18 W. 26th St., Minneapolis 4, Minn.

Cranes (hand power), Hoists (crane, electric, hydraulic, portable), Hydraulic cylinders.

draulic, pertable), Hydraulic cylinders.

Representatives

Ariz., Phoenix—Southwest Truck Body & Equipment, 2214 No. 27th Ave.

Calif., Fresno—A & P Body & Tank Distributors, 245 "M" St.

Calif., Los Angeles—American Equipment Co., 1461 E. Washington Blvd.

Calif., Los Angeles—Lumbo Equipment Co., 1012 So. Los Angeles Ave.

Calif., Los Angeles—K & K Body Works, 3045 Verdugo.

Calif., Oakland—Rickstell Sales Co., 2985 Ford.

Calif., San Francisco—Heil Equipment Co. of Northern Calif., 999 16th St.

Colo., Denver—Truck Equipment Co., 3936 Walnut Idaho, Boise—The Lang Co., Inc., 420 No. Curtis Rd.

Idaho, Pocatello — Williamsen Body and Equipment Co., P. O. Box 1285 Mont., Billings—H-C-L Equipment Co., 421 No. 20th.

Mont., Great Falls—H-C-L Equipment Co. Equipment Co., P. O. Box 1285
Mont., Billings—H-C-L Equipment Co., 421
No. 20th.
Mont., Great Falls—H-C-L Equipment Co.,
P. O. Box 1662.
Nev., (Covered by California distributors).
N. Mex., Albuquerque—Winter-Weiss Co.,
6130 No. Second St.
Ore., Portland—Schetky Equipment Corp.,
1810 S. E. 10th Ave.
Utah, Ogden—Truck Equipment Co., 3936
Walnut.

1810 S. E. 10th Ave.
Utah, Ogden—Truck Equipment Co., 3936
Walnut.
Wash., Seattle—Nelson Truck Equipment
Co., Inc., 128 Westlake No.
Wash., Seattle—Tri-Coach Co., 3407 Airport
Way
Wyo. (Covered by Denver, Colo., distributors)

UNITED STATES AIR CONDITION-ING CORP., see HUGHES-KEENAN

U. S. PLASTIC ROPE, INC., 2581 Spring St., Redwood City, Calif.

Mylar (plastic) cables and ropes for hoists and general industrial materials handling.

Representations:

Representations:
Calif., Los Angeles—J. H. Armite Laboratories, 6699 Broad St.
Calif., San Francisco—Willard A. Brorsen, 337 Sacramento St.
Calif., San Rafael—W. L. Pengelly Co., P. O. Box 321.
Calif., Westminister—W. L. Pengelly Co. 6972 Sowell Ave.
Utah, Salt Lake City—Allied Industrial & Metal Sales, P. O. Box 141.
Wash., Seattle—International Sales, 1230 Westlake Ave. No.

UNITED STATES RUBBER CO., 1230 Avenue of the Americas, New York 20, N. Y.

Barrels (rubber, collapsible), Belting (conveyor, fabric, canvas, elevator, endless), Conveyors (belt), Elevators (belt), Tires (industrial truck and tractor), Cushioning materials, Dunnage (pneumatic), Tapes (pressure sensitive), Wheels (plastic and rubber

Calif., Los Angeles—Soto and E. 46th St. LU 9-3161 Calif., San Francisco—6025 Third St. MI 8-3783 Colo., Denver-4800 Colorado Blvd. DU 8-2481 2481 Ore., Portland—630 N. W. Tenth Ave. CA 7-6571 Utah, Salt Lake City—1967 So. Second W. St. EM 4-6563 Wash., Seattle—5900 First Ave. So. EL 2502

U. S. STEEL SUPPLY DIV., UNITED STATES STEEL CORP., 208 So. La Salle St., Chicago 90, Ill.

Strapping and strapping equipment.

Calif., Los Angeles—2087 E. Slauson. LU 5-0101 Calif., San Francisco—1940 Harrison St. MA 1-4988 Ore., Portland—2345 N. W. Nicholai St. MA Ore., Po. 3-3014 Wash., Seattle—Third So. & Landey Sts. MA 3-3014

UNITED STATES STEEL CORP. see COLUMBIA-GENEVA STEEL DIV. see CYCLONE FENCE DEPT., AMERICAN STEEL & WIRE DIV., see U. S. STEEL SUPPLY DIV.

UNIVERSAL CRANEHOIST & MONO-RAIL CO., 634 Sixth St., San Francisco, Calif. MA 1-8841

Conveyors (automatic, chain or link, continuous flow, foundry, overhead trolley, special), Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, link overhead, locomotive overhead, monorail overhead, organic fraps, Grapples, Hoists (chain, crane, electric, hand, monorail, portable, traveling), Magnets, Scales (monorail), Slings (chain, wire repe), Trolleys, Winches and Windlasses.

UNIVERSAL HOIST CO., 1326 Waterloo Rd., Cedar Falls, Iowa

Conveyors (belt, bucket, continuous flow, drag), Elevators (belt, bucket, continuous flow, ether).

Ariz., Phoenix—Geo. Hunsicker, 953 W.
Glenrosa. AM 5-4612
Calif., Los Angeles—L. N. Webster & Co., 422112, Avocado St. NO 3-0852
Calif., San Francisco — Reid-Strutt Co., Inc., 41 Drumm St. GA 1-4590
Calif., San Gabriel—R. D. Helms Co., 8456
E. Las Tunas Dr. AT 6-5363
Colo., Denver—Wagner Mach. & Mill Supply, 4444 York St. AC 4501
N. Mex., Roswell—Carl J. Carlson, 1105 So. Kentucky St.

Wash., Spokane—Carter-Miller Mill Furn-ishing Co., 1324 No. Ash St. FA 7-6624

THE UPSON-WALTON CO., 12500 Elmwood Ave., Cleveland 11, Ohio Wire rope, Tackle blocks, Rope fittings, and Crane hook blocks.

Representatives
Calif., San Francisco—Moffet & Simmons,
975 Indiana St. AT 2-2600
Ore., Portland—Lou Falkenhagen, 907 N.W.
Irving. BE 3074
Utah, Salt Lake City — J. Nicodemus, 653
10th Ave. DA 2-0728
Wash., Seattle—Lou Falkenhagen, 6549 42nd
Ave. S. VE 8240

VACU-BLAST CO., INC., P. O. Box 885, Belmont, Calif. LY 3-7658

Pneumatic conveying, blasting and abrading equipment.

Calif., Long Beach.—Viets Engineering Co., 1965 Pacific Ave. HE 5-2522 Calif., San Francisco — Anderson Steel Products, 540 Brannan St. GA 1-6683 Colo., Denver—General Welding Supply Co., 1429 Market St. KE 4-5319 Wash., Seattle—Welders Supply Co., 1741 Fourth Ave. So. MU 2-2882

VAC-U-LIFT CO., P. O. Box 298, Salem, III.

Vibrators (vacuum).

Representative
Calif., El Segundo — Sancor Corp., 1661
Franklin Ave. OR 8-5069
Calif., LaMirada—R. A. Roosevelt Co., P.O.
Hox 286
Wash., Seattle—Tyee Machinery Co., 1924
let Ave S.

VANGUARD ENGINEERING CO., 1908 E. 66th St., Cleveland 3, Ohio

Crames (counter balanced, mobile, indoor, hand or battery powered), Tractors (full conversion units, walkie or rider, gas or electric), Dumpers (self-propelled, indoor, mobile, hydraulic, side or end dump), Trucks (self-propelled platform, self-leading and unloading, self-propelled, mobile, indoor, maintenance work shep).

Representative

Ariz., Phoenix—Kinney Materials Handling
Equipment Co., 929 Grand Ave. AL 8-2778
Calif., Los Angeles—James P. Kinney Co., 3659 Whittier Blvd. AN 9-7411
Calif., San Francisco—Big Joe of California, 48 Second St. YU 2-9720
Colo., Denver—J. D. Whiting, 4135 Quitman St. GR 7-2134
Wash., Seattle—Air-Mac, Inc., 3838 So. Fourth Ave. MU 2-3388

VICKERS, INC., MOBILE HYDRAU-LICS DIV., Administrative & Engineering Center, Detroit 32, Mich.

Hydraulic pumps, Motors, Control valves, Power steering pumps and cylinders.

Calif., Berkeley—920 Grayson St. AS 3-4997
Calif., El Segundo—2160 E. Imperial Hwy.
OR 8-2503
Ore., Portland—2505 S. E. 11th Ave. BE 4-Wash., Seattle-623 Eighth Ave. So. MU 2-6950

VICKERS, INC., see TULSA WINCH

VICTOR BALATA & TEXTILE BELT-ING CO., 53 Park Pl., New York 7, N. Y.

Belting for machinery purposes (solid woven, can-vas stitched, Neoprene, Hycar, Balata).

Factory Representatives
Calif., Orinda—Hugh Reed, 45 Loma Vista Dr.
Calif., So. Pasadena — T. H. Hinchcliffe,
P. O. Box 221
Ore., Portland—S. Alex Turnley, 4433 N.E. Calif.. Fresno—Elliott Manufacturing Co., 1734 Ventura St.
Calif.. Los Angeles—Degen-Fiege Co., 4559
E. Sheila St.
Calif.. San Francisco—Pacific Coast Rubber Co., 51 Main St.
Colo., Denver—Western Belting Co., 1720
Wazee St.
Ore., Portland—Goodyear Rubber & Asbestos Co., 205 N. W. Fifth Ave.
Utah, Salt Lake City — Mountain States Rubber Co., 131 Social Hall Ave.
Wash., Everett — Washington Belting & Rubber Co., 292 Grand Ave.
Wash., Seattle — Washington Belting & Rubber Co., 2616 First Ave. So.
Wash., Spokane—Nott-Atwater Co., So. 157
Monroe St.
Wash., Tacoma — Washington Belting & Rubber Co., 2762 E. 11th St.

VIKING FORGE & STEEL CO., 1544 East Shore Hwy., Albany, Calif.

Lift forks: manufacturers' specifications for original equipment or replacement. Custom built for special requirements.

(Available through Firk Lift Truck and parts dealers).

See advertisement on page 159

VIKING PUMP CO., Fourth and Koch Sts., Cedar Falls, la.

Representatives
Calif., Los Angeles—Viking Pump Co. of
Los Angeles, 4432 Long Beach Ave. AD
3-8165
Calif., Millbrae—DeLaval Pacific Co., 201
E. Millbrae Ave. OX 7-4001
Colo., Denver—Hendrie-Bolthoff Co., 1635
17th St. KE 4-4111
Utah, Salt Lake City—Utility Engineers,
630 Dooly Bldg. Phone 3-4682

VOSS BELTING & SPECIALTY CO., 5645 No. Ravenswood Ave., Chicago 26, III.

Belting (conveyor, fabric, canvas, elevator, endless, wire), -turns, Slings (belt, canvas).

Representative
Calif., Hollywood—Ted Merkins, P. O. Box 2128. HO 5-9207

WARREN PUMPS, INC., 591 Bridges

Ave., Warren, Mass. Pumps (centrifugal, reciprocating, screw, gear).

Calif., Los Angeles—Shoemaker Eng. Co., 328 So. Beverly Dr. BR 2-5880
Calif., San Francisco—George E. Swett & Co., 100 Howard St. EX 2-6145
Colo., Denver—I. G. Downs Co., Inc., 1550
Blake St. TA 5-2885
Wash., Seattle—R. L. Dyer, 12118 Third
Ave. MA 2-3443

WASHINGTON IRON WORKS, 1500 6th Ave. So., Seattle 4, Wash.

Whirley type gentry; Portable, hammerhead, Thead and level luffing cranes; Crawler, wagon or truck mounted cranes; Gasoline, diesel or electric multi-drum hoists; Mine hoist cableways and hoist; Derricks; General purpose hoists.

See advertisement on page 128

Calif., San Francisco—Fred E. Barnett Co., 1455 Custer Ave. Note: Barnett Co. also has offices and warehouses in Ukiah, Eureka, Sacramento, Calif., and in Klamath Falls, Ore.

WAUKESHA MOTOR CO., W. St. Paul Ave., Waukesha, Wis.

Engines (gas, gasoline, diesel).

Calif., Los Angeles—4927 Pacific St.

Representatives
Calif., Emeryville — Waukesha Pacific
Equipment Co., 1310 66th St.
Calif., Eureka—B & S Supply Co., 813
Whipple

Calif., Los Angeles—Waukesha Southern California, P. O. Box 3128, Terminal Annex.
Colo., Denver—Waukesha Engine & Equip. Co., 4999 Jackson St. Idaho, Boise — D. N. Nordling Parts Co., 14th St. at Main Ore., Portland—Truck & Industrial Equipment Co., 7 N. E. Oregon St. Utah, Sait Lake City—Love Co., Inc., 47 E. 7th So.
Wash., Seattle—Piston Service, Inc., 905 E. Union St.

WAYNE MFG. CO., see AUTOETTE

WAYNE MFG. CO., 1201 E. Lexington St., Pomona, Calif. **Power and Street Sweepers**

Calif., Palo Alto—1590 Dana Ave. DA 3-4074

Representative (Power Sweepers)
Phoenix—Road Machinery Co., 716 Representative (Power Sweepers)
Ariz., Phoenix—Road Machinery Co., 716
So. 7th St.
Calif., Bakersfield—Brown-Bevis Industrial Equipment Co., 1419 Union Ave.
Calif., Burbank—R. J. Lison Co., 3800 Riverside Dr.
Calif., Eureka—Eureka Boiler Works, Foot of S. St. Calif., Eureka—Eureka Boiler Works, Foot of S St.
Calif., Fresno—Contractors Equipment & Supply Co., 1143 C St.
Calif., Sacramento—J. R. Rolfe Equipment Corp., 3200 Jay St.
Calif., San Diego—Brown-Bevis Industrial Equipment Co., 701 Harbor Dr.
Calif., San Francisco—Curtis Equipment Co., 1086 Folsom St.
Calif., San Jose—Emery Supply Co., 1401 W. San Carlos
Colo., Denver — Joe Coursey Equipment Co., 1086 Folsom St.
Calif., San Jose—Emery Supply Co., 1401 W. San Carlos
Colo., Denver — Joe Coursey Equipment Co., 110, 2327 Brighton Blvd.
Mont., Billings—Industrial Equipment Co., 415 No. 27th St.
Nev., Las Vegas—Clark County Wholesale Mercantile Co., 505-512 So. Maine St.
Nev., Reno—J. R. Rolfe Equipment Corp., 3200 J St.
Utah, Salt Lake City—Rocky Mountain Machinery Co., 1485 South Second W. St.
Wash., Seattle—Materials Handling Equipment Co., 110, 2963 First Ave. So.
Wash., Spokane—Standard Equipment Co., 2725 E. Sprague Ave.
Wyo., Casper—Studer Tractor & Equipment Co., 2300 E. Yellowstone Hwy.

**Representatives* (Street Sweepers)*

Representatives (Street Sweepers)
Ariz., Phoenix—Road Machinery Co., 716
So. 7th St. Representatives (Street Sucepers)
Ariz., Phoenix—Road Machinery Co., 716
So. 7th St.
Ariz., Tucson—Road Machinery Co., 2601
So. 4th Ave.
Calif., Bakersfield—Brown-Bevis Industrial Equipment Co., 1419 Union Ave.
Calif., Bureka—Eureka Boiler Works, Foot of S St.
Calif., Fresno—Contractor Equipment & Supply Co., 1143 C St.
Calif., Los Angeles—Brown-Bevis Industrial Equipment Co., 6550 E. Washington Blvd.
Calif., Riverside—Braman-Dickerson Co., Inc., 1875 E. 8th St.
Calif., Riverside—Braman-Dickerson Co., 16th & American River
Calif., Sacramento—Western Traction Co., 16th & American River
Calif., Sar Francisco — Western Traction Co., 2230 Third St.
Colo., Denver—Ray Corson Machinery Co., 350 Kalamath St.
Idaho, Boise—Feenaughty Machinery Co., 600 Front So.
Mont., Billings—Industrial Equipment Co., 415 No. 27th St.
Mont., Kalispell — Treasure State Equipment Co., 5th Ave. W., North & Railroad Nev., Las Vegas—Clark County Wholesale Mercantile Co., 505-512 So. Main St.
Nev., Reno—General Equipment Co., 1501 E. Second St.
N. Mex., Albuquerque—J. D. Coggins Co., 1717 Second St. N. W.
N. Mex., Farmington—J. D. Coggins Co., P. O. Box 1356
Ore., Portland—Feenaughty Machinery Co., 112 S. E. Belmont St.
Utah, Salt Lake City—Rocky Mountain Machinery Co., 1485 So. Second W St.
Wash., Spokane — Feenaughty Machinery Co., 1028 Sixth Ave.
Wyo., Casper—Studor Tractor & Equipment Co., 715 No. Division St.
Wyo., Casper—Studor Tractor & Equipment Co., 2300 Yellowstone Hwy.

WEBB, JERVIS B., CO. OF CALIF., see also SPANMASTER CRANE DIV. WEBB, JERVIS B., CO. OF CALIF., 9301 Rayo Ave., South Gate, Calif. Conveyors (overhead, floor, belt, roller), Overhead traveling cranes and monorails.

Calif., San Francisco—2166 Market St. KL 2-2709 Wash., Seattle—2001 Eastlake Ave. EA 2-0132

Representative
Utah, Salt Lake City-Modern Equipment
Co., 52 W. Second So. DA 2-5887

WEBER MARKING SYSTEMS DIV., ADDRESSING MACHINE CO., INC., Weber Industrial Park, Mount Prospect, III.

Machines, Handprinters and stenciling systems for addressing and marking labels, Tags and cartons.

addressing and marking labels, Tags and cartons.

Representatives

Ariz., Phoenix—Kistler Industrial Service,
902 So. Central Ave. AL 8-7196

Calif. Los Angeles—Cal-State Distributors,
8928 So. Figueroa. PL 2-7141

Calif., San Francisco—Shannon T. Mason,
2690 44th Ave. LO 4-2654

Colo., Denver—Woehrmyer Printing Co.,
770 Acoma St. AL 5-0341

Ore., Portland—F. E. Bennett Co., 426 N.W.
Sixth Ave. CA 8-2321

Wash., Seattle—Masterson's Equip. Supplies, 1452 Elliott Ave. W. AT 2-0245

WEHLE CONVEYOR CO., 25 Washington St., Binghamton, N. Y.

Floor to floor conveyors (chain type for pack ages, trucks or hampers, shopping carts and

Representatives
Calif., Los Angeles—Handling Systems of
America, 429 So. Western Ave. DU 8-2410
Calif., Oakland—Roll Rite Corp., 801 Jefferson St. GL 1-5921
Nev., Reno—Sierra Industrial Co., 317 Morrill Ave. FA 3-1301

WEIGH RIGHT AUTOMATIC SCALE CO., Mills Rd., Joliet, Ill.

Conveyors (bucket, belt, continuous flow, flight, automatic), Elevators (belt, bucket, continuous flow), Scales (packaging).

Representative
Calif., Los Angeles—Watts King Co., 3404
No. Figueroa, CA 2-5101
Calif., San Francisco—Food Equipment & Supply Co., 210 Mississippi St. AE 1-8162
Colo., Denver—Halsell Brokerage Co., 3101
Walnut St. TA 5-8798
Ore., Portland—Duncan Equipment, 103 Regal Bldg. CA 8-4107
Wash., Seattle—Duncan Equipment Co., 506 Broadway. EA 3838

WENTWORTH & IRWIN, INC., 123 N. E. Oregon St., Portland 12, Ore. BE 5-4161

Auto bodies and trailers.

WEST BEND EQUIPMENT CORP., 307 Water St., West Bend, Wis.

Conveyors (belt), Elevators (barrel, continuous flow, portable, freight), Racks (pallet, storage), Stackers (portable electric, portable hand), Tables (elevating), Trailers (factory and warehouse), Trucks (bag, barrel, drum, box type, die handling, dolly, elevating or lifting, factory and warehouse, hand, hand lift, hand-mechanical or jack-type lift, hydraulic lift, pallet; sheet handling, skid handling), Wheels (hand truck, rubber tired).

Calif., Wheels (hand truck, rubber tired).

Representatives
Calif., Alhambra—Geo. M. Prescott Co., 825 So. Fremont Ave. CU 3-3114
Calif., San Francisco—P. F. O'Donnell Co., 2298 Jerrold. AT 8-6362
Colo., Thornton—Equipment Eng. Co., 1400
Ruth Dr. AT 7-5255
N. Mex., Albuquerque—Stryco Sales, Inc., 312 Industrial, N. E. Phone 4-6048
Ore., Portland — Hallidle Machinery Co., 1545 S. E. Union Ave. FI 7491
Wash., Seattle—Preston Faller Co., 1921
Minor Ave. MA 4256
Wash., Spokane—Liftco, Inc., 4824 E. Trent.
KE 5-1776
Wash., Tacoma—Preston Faller Co., So. 19th and Jefferson. BR 1573
Wash., Yakima—Preston Faller Co., 108 So. Fourth Ave. Phone 6668

WESTERN CHAIN CO., 1807 Belmont Ave., Chicago 13, Ill.

Chains (welded and weldless for all purposes).

WESTERN GEAR-WRIGHT HOIST DIV.

Ariz., Phoenix—G. M. Hinton, 324 No. 16th Ave. AL 4-3949 Utah, Salt Lake City—Carlos W. Stone, 2003 Parleys Canyon Blvd.

WESTERN GEAR CORP., P. O. Box 182, Lynwood, Calif.

Trucks (motorized hand micro lever), Winches and

Calif., Belmont—P. O. Rox 126. LY 3-7611 Colo., Denver—865 Lincoln St. KY 4-5513 Ore., Portland—930 S. E. Oak St. BE 5-3177 Wash., Seattle—417 Ninth Ave. So. MA 0062

WHITE MOTOR CO., Cleveland 1, Ohio

Heavy duty motor trucks.

Calif., San Francisco-590 Brannan St. YU 2-5134
Calif., Los Angeles—400 East Washington.
RI 9-9171

See advertisement on page 133

Colo., Denver—1910 38th St. AC 2-4661 Ore., Fortiand—2705 N. W. Nicolai St. CA 6-2411

Representatives

Dealers and distributors in most major cities of the West. Consult telephone book or contact nearest branch office.

WHITNEY CHAIN CO., 237 Hamilton St., Hartford 2, Conn.

Power transmission and conveyor chain drives, Flexible couplings, Whitney-Tormag magnetic

Calif., Los Angeles—P. O. Box 58454, Ver-non Station. LU 7-3151 Utah, Sat Lake City—1676 E. Forest Hills Dr. CR 7-3520

Calif., Huntington Park—Mechanical Drives Co., 5400 Pacific Blvd. Calif., Santa Clara—Whitney Ind. Drives, 2311 Lafayette St. 2311 Lafayette St.
Ore., Portiand — Northwest Chains &
Sprockets, 31 N. W. 1st Ave.
Wash., Seattle — Northwest Chains &
Sprockets, Inc., 3628 E. Marginal Way

WILKIE CO., 5520 Arch St., Philadelphia 39, Pa.

Gravity telescopic roller conveyors, Gravity telescopic skate wheel conveyors, Flopover curves, Belt telescopic conveyors, Cantilevered telescopic conveyors.

Representatives

Calif., Los Angeles—Davis Material Handling Co., 4891 Huntington Dr. No. CA 2-7197

Wash., Seattle—Air Mac, Inc., 3838 Fourth Ave. So. Wash., Spokane—Air Mac, Inc., E. 3710 Trenton Ave.

WINDELER, GEORGE, CO., LTD., 2201 Jerrold Ave., San Francisco 24, Calif.

WIRE & IRON PRODUCTS, INC., 1725 Sixteenth St., Detroit 16, Mich. Baskets (metal and wire), Guard panels for over-head conveyors, Partitions, Enclosures.

Ariz., Phoenix — Young Steel Buildings, Inc., 642 No. 17th Ave. AL 8-6701 Calif., Los Angeles—Green-Penny Co., 4180 E. Noakes St. AN 8-3321 Calif., Oakland — Green-Penny Co., 2211 San Pablo. GL 1-8555 Colo., Denver—Landes, Zachary, Peterson, 601 So. Jason St. SH 4-1311 Ore., Portland—Oregon Handling Equipment, 2949 N. W. St. Helens Rd. AT 4196 Wash., Seattle—G. E. Burleigh, 5245 Pullman. FI 2545

WIRE BELT COMPANY OF AMER-ICA, 18 River St., Winchester, Mass. Belting (wire conveyor, processing, enrober type).

Representative

Calif., San Mateo-3827 Fernwood Ave. FI

WIRE ROPE CORPORATION OF AMERICA, St. Joseph, Missouri Wire rope, Sling and Fittings.

Calif., Los Angeles—1018 S. Santa Fe Ave. MA 7-6356 Calif., San Francisco—370 Tenth Ave. UN 1-0212 Colo., Denver-3649 E. 40th Ave. DU 8-3649

WIRETEX MFG. CO., 10 Mason St., Bridgeport 5, Conn.

Baskets and processing carriers of any alloy for heat treating, plating, de-greasing, etc.

Representative

Calif., Los Angeles—Laine Eversoll Co., 10835 Santa Monica Blvd. BR 2-2817

WOOD, JOHN, CO., see BENNETT PUMP DIV.

WONDERLIFT TRAILERS, 215 No. 28th St., Phoenix, Ariz. Hydraulic lift trailers.

Representatives

Ariz., Phoenix—Schramm Specialties, 215 No. 28th St. BR 5-0039 Calif., Los Angeles—Biair-Martin Co., 905 Mission St. RY 1-2861 MISSION St. RY 1-2861 Calif., San Francisco — Curtis Equip. Co., 290 7th St. MA 1-1910 Utah, Salt Lake City—G & L Equip. Co., 117 E. 6th South. EM 4-3752

WORLEY & CO., 4820 So. Durfee Ave., Pico Rivera, Calif. RA 3-3245 Baskets (metal), Bins, Boxes (tote), Recks (storage), Tables (portable).

Representatives

Representatives

Ariz., Phoenix—Robert G. McKinney, P. O. Box 2483. WH 5-5243

Calif., Fresno — Healey & Popovich, 1703 Fulton St. AM 4-3224

Calif., San Francisco—Trask & Squier, 39 Natoma St. SU 1-3473

N. Mex., Albuquerque — George Mayhew, P. O. Box 8301, Stn. C. AL 5-8385

Ore., Portland—W. H. Cress Co., 201 Concord Bidg. CA 8-1714

Utah, Salt Lake City—Rex W. Williams & Son, 976 Fourth St. EL 5-6266

Wash., Seattle—Hal Fogman & Associates, 1603 Bigelo No. AT 4-0210

Wash., Spokane—Fryer Ford Co., 612 Peyton Bidg. MA 4-4453

Hawaii, Honolulu—H. P. Ross, P. O. Box 54. Phone 542-405

WORTHINGTON CORP., Harrison,

V-belt, LP Gas compressors, V belt pulleys, Liquid handling pumps.

Branches

Calif., Los Angeles — 5075 Santa Fe Ave. LU 3-6451 Calif., San Francisco — 224 Townsend St. GA 1-4996 GA 1-4906 Colo., Denver—1640 Blake St. TA 5-7284 Ore., Portland—1815 S. E. Seventh Ave. BE 2-1158 Utah, Salt Lake City—118 Social Hall Ave. EM 4-6591 Wash., Seattle — 2616 Western Ave. MA 2-4218

Representatives

Ariz., Phoenix—Geo. S. Thomson Co., Inc., 915 So. Central Ave.
Calif., Arcata—Humboldt Machine Works, 10th & I Sts. G St.
Calif., Bakersfield—Inland Equipment Co.,
Hwy. 99 at Olive Dr. Arcata—Munnell & Sherrill, 156 So.

Calif., Bell — General Compressor & Machinery Corp. 4801 Cecelia St.
Calif., Crescent City — Crescent City Machine Works, Junction 101 on Hwy 99
Calif., El Centro—W. H. Douthitt Co., E. Main St.
Calif., Los Angeles—Howard Supply Co., 5125 So. Santa Fe Ave.
Calif., Modesto—Geiger Iron Works, 124
Willow St. Calif., Modesto—Genge.
Willow St.
Calif., Oakland — Howard Supply Co., 61 Willow St.

Calif., Oakland — Howard Supply Co., 61
Madison St.

Calif., Oakland — Shields, Harper & Co.,
5107 Broadway

Calif., Redding—Gerlinger Steel & Supply
Co., 1527 Sacramento St.

Calif. San Bernardino—H. P. Kingsley Co.,
975 So. E St.

Calif., San Diego—Kenton Equipment Co.,
1895 Main St.

Calif., San Francisco — Hubbard Machine
Co., 1257 Folsom St.

Calif., San Francisco—Power Machine Co.,
377 Brannon St. Calif., San Francisco—Power Machine Co., 377 Brannon St.
Calif., Stockton—Geiger Iron Works, Scotts Ave. & Pilgrim St.
Calif., Ukiah—Klamath Machine & Locomotive Corp. of Calif., 720 No. State St.
Calif., Vuba City—Schmidt Pump House, Inc., 720 Bridge St.
Colo., Denver—Theo. L. Carson Co., 1120
Tenth St.
Colo., Grand Junction—Plateau Equipment Supply Co., 805 So. Eighth
Idaho, Boise—M. R. Priest & Sons, Inc., 515
E. Highland Supply Co., So., R. Priest & Suns, Supply Co., Sol Sherman Ave.

Idaho, Coeur D'Alene — Gardner Supply Co., 501 Sherman Ave.

Idaho, Idaho Falls—Farmers Pump & Supply Co., W. Broadway

Idaho, Lewiston — Jameson Machine Supply Inc., 12th & Idaho Sts.

Idaho, Wallace—Gardner Supply Co., 824

Bank St.

Mont., Billings — Great Northern Tool & Morks. Idaho, Wallace—Gardner Supply Co., 824
Bank St.
Mont., Billings — Great Northern Tool &
Supply Co., 2224 Minnesota Ave.
Mont., Helena—Caird Engineering Works,
Helena & Montana Aves.
N. Mex., Albuquerque—Geo. S. Thomson
Co. of N. Mex., 316 Central S. E.
N. Mex., Carlsbad—Union Industrial Corp..
112 E. Mermod St.
Ore., Coos Bay—Hansen Electric Co., 245
So. Second St.
Ore., Eugene—Burton Saw & Supply Co.,
449 Blair Blvd.
Ore., Klamath Falls—Klamath Machinery
Co., Box 781
Ore., La Grande—Industrial Machinery &
Supply Co., Box 775
Ore., Portland—Mi-Van Co., 524 S. E. Main
St.
Ore., Portland—Portland Machinery Co. St.
Ore., Portland — Portland Machinery Co., 208 S. W. First Ave.
Ore., Roseburg—Industrial Supply Co., 1928
N. E. Airport Rd.
Utah, Salt Lake City—Rocky Mountain Machinery Co., 1485 So. Second W.
Wash., Aberdeen — Whitcher Machinery Co., 411 E. State St.
Wash., Moses Lake—Faber Industrial Supply ply Wash., Seattle — Star Machinery Co., 241 Lander St. Lander St.
Wash., Spokane—Spokane Machinery Co.,
E. 3626 Trent Ave.
Wash., Walla Walla—Morrison Supply Co.,
217-223 E. Adler
Wash., Yakima—Picatti Brothers, 105 Third
St.

WRIGHT HOIST DIV., AMERICAN CHAIN & CABLE CO., INC., 735 Hay St., York, Pa.

Chain Hoists, Electric Hoists, Trolleys, Retchets Hoists, Jib Cranes, Overhead Hand Traveling and Motor Driven Cranes.

Branch Offices

Representatives

Calif., Los Angeles—Irving G. King Co., 821 Mateo St. TU 3176
Calif., San Francisco—Stryco Mfg. Co., 470
Natoma St. SU 1-8310
Ore., Portland — Paulson Machine Works, 1433 N. W. Quimby St. CA 8-5237
Wash., Seattle — Berger Engineering Co., 3236 16th Ave., S. W. MU 4280
Wash., Spokane—Union Iron Works, E. 217
Montgomery. HU 7-1691

YALE MATERIALS HANDLINGS DIV.—ZURN INDUSTRIES

YALE MATERIALS HANDLING DIV. YALE & TOWNE MFG. CO., 11000 Roosevelt Blvd., Philadelphia 15,

Manufacturers of industrial lift trucks and tractor shovels and hoisting equipment.

Branches
Calif., Los Angeles—5711 E. Olympic Blvd.
RA 3-9761
Calif., San Diego — 4402-10 Kearney Mesa
Rd. BR 7-4222
Calif., San Leandro—1251 Doolittle Drive.
LO 2-4200

See advertisement on page 17

Representatives

Representatives

Ariz., Phoenix—Kinney Mats. Hdig. Equip., Inc., 929 Grand Ave. AL 8-2778
Calif., Fresno — Lift Truck Service Corp., 2828 Church St. AD 3-7211
Calif., Modesto—Lift Truck Service Corp., 319 Grand Ave. LA 2-1886
Calif., Stockton—Lift Truck Service Corp., 2211 N. Hghy. 99. HO 6-8984
Colo., Denver—Joe Coursey Equipment Co., 1nc., 327 Brighton Blvd. AC 2-9581
Ore., Fortland—Prentice Material Handling Co., 2303 N. Randolph Ave. AT 2-3262
Utah, Salt Lake City—Machinery Center, Inc., 1201 S. 6th W. HU 4-7601
Wash., Seattle—Coast Associates, Inc., 1961
4th Ave. S. MU 2-7192
Wash., Spokane—Towne Equipment Co., Inc., 622 Monroe St. FA 8-1540

YOUNG SPRING & WIRE CORP., OTTAWA STEEL DIV., 4351/2 So.

Main St., Ottawa, Kan. Fork lift trucks (outdoor type, hydraulic).

Representatives
Ariz., Phoenix-O. S. Stapley Co., 407 So. Ariz., Phoenix—O. S. Stapley Co., 407 So. 17th Ave.
Calif., Los Angeles — Smith-Booth-Usher Co., 2001 Santa Fe Ave. TR 6911
Caiff., San Francisco — Edward R. Bacon Co., Folsom at 17th St. HE 1-3700
Idaho, Boise — Intermountain Equipment Co., Broadway at Myrtie. Phone 3-6441
Idaho, Pocatello — Intermountain Equipment Co., 210 No. 4th Ave. Phone 3663
Mont., Billings—Seitz Machinery Co., 420
No. 24th St.
Mont., Bozeman—Seitz Machinery Co., 1107
Smelter Ave.
N. Mex., Albuquerque—Log Cutters Sup-

N. Mex., Albuquerque—Log Cutters Supply Co., 6608 2nd St. N. W. Core., Portland—Howard-Cooper Corp., 5821 N. E. Glisan. BE 5-6601. (Also Howard-Cooper branches in Central Point, Coquile, Eugene, and Roseburg, Ore.) Utah, Salt Lake City—Kimball Equipment Co., 1846 So. Second W. Phone 6-6775 Wash., Seattle—Howard-Cooper Corp., 5055 4th Ave. So. MO 6-1744 Wash., Spokane—Western Machinery Co., 308 Division St. Wyo., Casper — Keremi Tractor & Equip. Co., 414 So. Elm St.

YUBA CONSOLIDATED INDUSTRIES, INC., YUBA MFG. DIV., 701 E. H St., Benicia, Calif. BE 628

Bins, Cranes (gantry, jib, pillar, swing, bracket, double beam overhead, electric and electric travel-ing overhead, foundry overhead, I beam overhead), Hoists (crane, derrick, drum, electric), Hoppers.

Branches

Calif., Los Angeles — 3605 So. Broadway. AD 1-5111 Calif., San Francisco — 520 Balfour Bldg. EX 2-0274

Representatives
Colo., Denver — Hank Thurstin Co., 475
Acoma
Utah, Salt Lake City—Pace-Turpin & Co., 726 So. Third
Wash., Seattle — Meyhill Nimusgrove Co., 2019 Third Ave.

ZURN INDUSTRIES, INC., MECHAN-ICAL POWER TRANSMISSION DIV.,

1965 Pittsburgh Ave., Erie, Pa. Flexible shaft couplings (gear-type utilixing fully crowned tooth, one piece continuous sleeve couplings, and jew flange-type couplings), Synchronizing clutches.

Representatives

Representatives

Calif., Los Angeles — Mark-Costello Co., 6511 Whittier Blvd. RA 3-4696

Calif., San Diego—Mark-Costello Co., 3022

Voltaire St. B£ 4-3477

Calif., San Francisco—Milligan-Spika Co., 1485 Bayshore Blvd. JU 5-8153

Colo., Denver — Goble & Sampson, 1737

Franklin St. AC 2-2685

Ore., Portland—Bearing Sales & Service, Inc., 1645 N. W. Hoyt St. CA 3-6301

Utah, Salt Lake City—Sales Eng. Co., Inc., 526 W. Eighth So. St. EL 5-1162

Wash., Seattle—Bearing Sales & Service, Inc., 2908 Sixth Ave. So. MU 2-0331

CLASSIFIED PRODUCTS SECTION

If you are searching for a particular type of material handling or industrial packaging product, look here under proper heading to obtain names of manufacturers-then refer to listings in "Where-to-Buy" section to obtain pertinent buying information.

Only manufacturers are included in this Directory whose response to WESTERN INDUSTRY'S questionnaire indicated they have distributor or company offices within the 11 Western states. Therefore, you will save time by referring to this directory to locate nearest sources of supply or product information.

AXLES-trailer or truck Eaton Mig. Co.
Electric Wheel Co.
F.A.B. Mig. Co.
French & Hecht Div.
Kay-Brunner Steel Products, Inc.
Magesco
Saginaw Prod. Corp.

BAGS-burlap, canvas Ames Harris Neville Co. Bemis Brothers Bag Co. Sackner Prod., Inc.

Magesco Saginaw Prod. Corp.

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BAGS-multi-wall Ames Harris Neville Co.
Bemis Brothers Bag Co.
Continental Can Co., Inc.
Industrial Marking Equipment Co. (printing) Portco Corp.

BAGS-shipping Bemis Brothers Bag Co. Sherman Paper Prod. Corp. of Calif.

BAGS-other American Sisalkraft Corp. Ames Harris Neville Co. (open mesh) Bemis Brothers Bag Co. (polyethylene) Portco Corp. (custom)

BARRELS FOR SHIPPING-

Continental Can Co., Inc. National Vulcanized Fibre Co. Rheem Mfg. Co. Spaulding Fibre Co., Inc.

BARRELS FOR SHIPPING

metal Republic Steel Corp. Rheem Mfg. Co.

BARRELS FOR SHIPPING-

other Gaylord Container Corp. (corrugated)

BASKETS—fibre Convoy, Inc. Federal Fibre Corp. Fibreboard Paper Products Corp. Gaylord Container Corp. National Vulcanized Fibre Co. Spaulding Fibre Co., Inc.

BASKETS—metal

Banner Metals, Inc. Cambridge Wire Cloth Co. Rack Engineering Co. of Calif., Springport Steel Prod. Co. Wire and Iron Products, Inc. Wiretex Mfg. Co. Worley & Co.

BASKETS—wire

DANKEIS—WIFE
Banner Metals, Inc.
Cambridge Wire Cloth Co.
Cyclone Fence Dept.
Cargotainer Div.
Hewitt-Robins, Inc.
McClintock Mfg. Co.
McDermott & Greene
Mid-West Wire Products Co., Inc.
Rack Engineering Co. of Calif.,
Inc.
Springport Steel Products Co.

Inc.
Springport Steel Products Co.
Ed Sullivan Equip. Eng. Services
Technibit Corp.
Wire and Iron Products, Inc.
Wiretex Mfg. Co.

BASKETS—other Cambridge Wire Cloth Co. (heat treating)

BATTERIES

C & D Batteries, Inc.
Thomas A. Edison, Inc.
Exide Industrial Div.
Gould-National Batteries, Inc.
KW Battery Co., Inc.
Laher Spring & Tire Corp.

BELTING-chain link

Conveyor Co. Cyclone Fence Dept. R & J Dick Co. Hurt Conveyor Co. Link-Belt Co.

BELTING—composition

American Pulley Co.
Conveyor Co.
R & J Dick Co.
Globe Woven Belting Co., Inc.
B. F. Goodrich Ind. Prod. Co.
Hurt Conveyor Co.
Ton-Tex Corp.

BELTING, conveyor — CONVEYORS, automatic

BELTING—conveyor Barber-Greene Co. Boston Woven Hose & Rubber Bastor-Greene Co.
Baston Woven Hose & Rubber
Co.
Carter-Miller Co.
Colorado Fuel & Iron Corp.
Colorado Fuel & Iron Corp.
Conveyor Co.
Cyclone Fence Dept.
A. B. Farquhar Div.
Food Machinery & Chemical
Corp.
Goodail Rubber Co.
Giobe Woven Belting Co., Inc.
B. F. Goodrich Ind. Prod. Co.
Hewitt-Robins, Inc.
Hurt Conveyor Co.
Link-Belt Co.
Manhattan Rubber Div.
Paramount Mfg. Co.
Quaker Rubber Div.
Republic Rubber Div.
Republic Rubber Div.
Resell Mfg. Co.
Sandvik Steel, Inc.
Stephens-Adamson Mfg. Co.
Thermoid Div.
Thor Power Tool Co.
Ton-Tex Corp.
U. S. Rubber Co.
Voss Belting & Specialty Co.

BELTING-fabric, canvas,

etc.

Buttalo Weaving & Belting Co.
Carter-Miller Co.
Conveyor Co.
Franklin Cotton Mill Co.
Gates Rubber Co.
Globe Woven Belting Co., Inc.
Hurt Conveyor Co.
Link-Belt Co.
Manhattan Rubber Div.
Russell Mfg. Co.
Ton-Tex Corp.
U. S. Rubber Co.
Victor Balata & Textile Belting Co. Co. Voss Belting & Specialty Co.

BELTING—elevator

Boston Woven Hose & Rubber Co. Carter-Miller Co. Carter-Miller Co. Conveyor Co. Goodall Rubber Co. Goodall Rubber Co., Inc. B. F. Goodrich Ind. Prod. Co. R & J Dick Co. Hewitt-Robins, Inc. Hurt Conveyor Co. Link-Belt Co. Manhattan Rubber Div. Republic Rubber Div. Reussell Mfg. Co. Thermoid Div. Ton-Tex Corp. Ton-Tex Corp.
U. S. Rubber Co.
Voss Belting & Specialty Co.

BELTING—endless

Alloy Wire Belt Co. Boston Woven Hose & Rubber Boston Woven Hose & Rubber Co.
Conveyor Co.
Cyclone Fence Dept.
Dayton Rubber Co.
R & J Dick Co.
Gates Rubber Co.
Globe Woven Belting Co., Inc.
B. F. Goodrich Ind. Prod. Co.
Hewitt-Robins, Inc.
Hurt Conveyor Co.
Link-Belt Co.
Manhattan Rubber Div.
Republic Rubber Div.
Republic Rubber Div.
Russell Mfg. Co.
Thermoid Div.
Ton-Tex Corp.
U. S. Rubber Co.
Voss Belting & Spec. Co. Co.

BELTING—wire

Alloy Wire Belt Co.
Cambridge Wire Cloth Co.
Conveyor Co.
Cyclone Fence Dept.
Gates Rubber Co.
Hewitt-Robins, Inc.
Hurt Conveyor Co.
Voss Belting & Spec. Co.
Wire Belt Co. of America

BELTING-other

Allis-Chalmers Mfg. Co. American Pulley Co. (V-belt)

Dodge Mfg. Corp. (V-belt)
Durkee-Atwood Co.
Goodall Rubber Co.
Globe Woven Belting Co., Inc.
(neoprene, hycar)
Link-Belt Co.
M-H Standard Corp. (slat)
Morse Chain Co. (timing drives)
J. E. Rhoads & Sons (leather, plastic) plastic) Sandvik Steel, Inc. Worthington Corp.

BELT FASTENERS & BELT

LACINGS

Clipper Belt Lacer Co. Crescent Belt Fastener Co. A. B. Farquhar Div. Flexible Steel Lacing Co. Hurt Conveyor Co. Paramount Mfg. Co. J. E. Rhoads & Sons Ton-Tex Corp.

BINS

Barber-Greene Co. Borroughs Mfg. Co. Bulldog Pallet Co. Convoy, Inc. Cost Reduction Equip. Co. Cost Reduction Equip. Co. Day Co. Equipment Mfg., Inc. Equipto Div. Frick-Gallagher Mfg. Co. Frontier Mfg. Co. Gar-Bro Mfg. Co. Hartman Metal Fabricators, Inc. Link-Belt Co. Lippmann Engineering Works Lyon Metal Prod., Inc. McDermott & Greene Noble Co. Noble Co. Noble Co.
Petley, Inc.
Pioneer Pallet Co.
Rack Engineering Co. of
California, Inc.
Republic Steel Corp.
Roll Rite Corp.
SPS Western Div.
Steekbin Corp. SPS Western DIV.
Stackbin Corp.
Ed Sullivan Equip. Eng. Services
Tote System, Inc.
Worley & Co.
Yuba Consolidated Industries,
Inc.

BOXES FOR SHIPPING-

corrugated, fibre and fibreboard Container Corp. of America Continental Can Co., Inc. Hunter Woodworks National Vulcanized Fibre Co. Thacker-Harris Co.

BOXES FOR SHIPPING

wirebound and wooden Martin Brothers Container & Timber Products Corp.

BOXES FOR SHIPPING

other

Other
Banner Metals, Inc. (wire)
Blackman Plastics, Inc.
Brummeler Steel Prod. Corp.
Equipment Mig., Inc. (railroad)
Fibreboard Paper Products Corp
Gaylord Container Corp.
Hollywood Plastics, Inc.
Industrial Marking Equip. Co.
G. B. Lewis Co. (woven wood
and wire) and wire)
Republic Steel Corp.
Specification Packaging Engr.
Corp.
Springport Steel Products Co. (wire mesh containers) Trans-Pak, Inc.

BOXES, TOTE

BOXES, TOTE
Banner Metals, Inc.
Blackman Plastics, Inc.
Brummeler Steel Prod. Corp.
Convoy, Inc.
Fab-Weld Corp.
Federal Fibre Corp.
Federal Fibre Corp.
Fort Steuben Metal Prod. Co.
Gaylord Container Corp.
Hartman Metal Fabricators, Inc.
Karl A. Herman Co.
Hollywood Plastics, Inc.
Hunter Woodworks
Industrial Skid & Pallet Co.

Jarvis & Jarvis, Inc.
G. B. Lewis Co. (Fiberglas)
Magnesium Co. of America
McDermott & Greene
National Vulcanized Fibre Co.
Petley, Inc.
Pollard Bros. Mfg. Co.
Powell Pressed Steel Co.
Pressteel Co.
Rack Eng. Co.
Roll Rite Corp.
Spaulding Fibre Co., Inc.
Stackbin Corp.
Ed Sullivan Equip. Eng. Services
Tote System, Inc.
Trans-Pak, Inc.
Trojan Metal Prod.

CAR PULLERS

Alden Equip. Div.
American Engineering Co.
American Engineering Co.
American Hoist & Derrick Co.
Berger Eng. Co.
Bodinson Mfg. Co.
J. D. Christian Eng.
Clyde Iron Works
Cost Reduction Equip. Co.
Fairfield Eng. Co.
L. B. Foster Co.
Hewitt-Robins, Inc.
Frank G. Hough Co.
Joy Mfg. Co.
Link-Belt Co.
Link-Belt Co.
Link-Belt Co.
Plymouth Locomotive Works
Shepard Niles Crane & Hoist
Corp. Corp. Stephens-Adamson Mfg. Co.

CARTS-hand and push

Arcadia Mfg. Co. Brooks & Perkins, Inc. Carter-Miller Co. Cost Reduction Equip. Co. Carter-Miller Co.
Cost Reduction Equip. Co.
Equipto Div.
Fab-Weld Corp.
Fairbanks Co.
Federal Fibre Corp.
Gar-Bro Mfg. Co.
Hamilton Caster & Mfg. Co.
Hartman Metal Fabricators, Inc.
Jackson Mfg. Co.
Lansing Co.
Lewis-Shepard Prod., Inc.
Magnesium Co. of America
McClintock Mfg. Co.
McDermott & Greene
Nutting Truck & Caster Co.
Pollard Bros. Mfg. Co.
Pressteel Co.
Rack Engineering Co. of
California, Inc.
Rol-Away Truck Mfg. Co., Inc.
Roll Rite Corp.
Saginaw Prod. Corp.
Saginaw Prod. Corp.
SpS Western Div.
Technibit Corp.
Trojan Metal Prod.

CARTS—other

American Pulley Co. (power-American Puney Co. (power driven) Cost Reduction Equip. Co. Electric Marketeer Mig. Co. (electric) Equipto Div. Equipto Div.
Hartman Metal Fabricators, Inc.
Jackson Mfg. Co.
Pressteel Co. (stock)
Rack Eng. Co.
Rol-Away Truck Manufacturing
Co., Inc.
SPS Western Div.
Technibilt Corp.
(wire basket, nesting)
Trojan Metal Prod.
Vanguard Eng. Co.

CASTERS

CASTERS
Albion Industries
Bassick Co.
Colson Corp.
Colson Equipment & Supply Co.
Darnell Corp.
Divine Brothers Co.
Fairbanks Co.
Faultless Caster Corp.
Gleason Corp.
Goddeyne Wheel Products
Hamilton Caster & Mfg. Co.
Jarvis & Jarvis, Inc.
Lansing Co.
Magnesium Co. of America
McDermott & Greene
Magesco
Stanley E. Morris Co.
Nutting Truck & Caster Co.
Rack Engineering Co. of Calif.,
Inc.

Rapids Standard Co. Roll Rite Corp. Saginaw Prod. Corp. Technibilt Corp.

CHAINS

CHAINS

Acme Chain Corp.
Alden Equip. Div.
American Chain Div.
Atlas Chain Mfg. Co.
Campbell Chain Co.
Columbus McKinnon Chain Corp
Conveyor Co.
Diamond Chain Co., Inc.
R & J Dick Co.
Dodge Mfg. Corp.
Jeffrey Mfg. Co.
Link-Belt Co.
Mathews Conveyer Co.
Stanley E. Morris Co.
Morse Chain Co.
Philadelphia Hoist Div.
Union Chain & Mfg. Co.
Western Chain Co.

CLUTCHES—safety Morse Chain Co.

COMMUNICATIONS

General Electric Co.
Kaar Engineering Corp.
Motorola Communications &
Electronics, Inc.
RCA Mobile Communications,
Inc.

CONVEYORS—apron

CONVEYORS—apron

Alden Equipment Div.
Alvey Conveyor Manufacturing
Co.
A. J. Bayer Co.
Bodinson Mfg. Co.
Bodinson Mfg. Co.
E. W. Buschman Co.
Chain Belt Co.
Chain Belt Co.
Chain Belt Co.
Chain Edit Co.
Coriffith Equip. Co.
Griffith Equip. Co.
Griffith Equip. Co.
Griffith Equip. Co.
Island Equip. Corp.
Jeffrey Mfg. Co.
Link-Belt Co.
Lippmann Engineering Works
M-H Standard Corp.
Mathews Conveyer Co.
Mechanical Handling Systems
Inc.
New London Eng. Co.
Sage Equipment Co., Inc.
Standard Conveyor Co.
Stephens-Adamson Mfg. Co.
Union Chain Mfg. Co. Systems.

CONVEYORS—automatic

A. J. Bayer Co. Alden Equipment Div. Alvey Conveyor Manufacturing Co.

Bosworth Mfg. Co.
E. W. Buschman Co.
Chainveyor Co.
J. D. Christian Engineers
Cleveland Tramrali Div.
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
A. B. Farquhar Div.
Flexoveyor Mfg. Co.
Food Machinery & Chemical
Corp. Co. Food Machinery & Chemical
Corp.
Corp.
General Nailing Machine Corp.
Griffith Equip. Co., Inc.
Hewitt-Robins, Inc.
Hurt Conveyor Co.
Jeffrey Mfg. Co.
Lamson Corp.
Link-Belt Co.
Lippmann Eng. Works, Inc.
M-H Standard Corp.
Mathews Conveyer Co., West
Coast
Mechanical Handling Systems,
Inc.
Paramount Mfg. Co.
Richards-Wilcox Manufacturing
Co. Co.
Sage Equipment Co., Inc.
Standard Conveyor Co.
Universal Cranehoist & Monorail Co. Jervis B. Webb Co. of Calif.

CONVEYORS—bag and

bale Alden Equipment Div.
Alvey Conveyor Manufacturing

Co.
A. J. Bayer Co.
Belt Corp.
Bemis Bro. Bag Co.
Bosworth Mfg. Co.
E. W. Buschman Co.
Carter-Miller Co.
Chantland Manufacturing Co.
J. D. Christian Engineers J. D. Christian English Conveyor Co.
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
A. B. Farquhar Div.
Flexoveyor Mfg. Co.
Food Machinery & Chemical

Corp.
Hewitt-Robins, Inc.
Hurt Conveyor Co.
Jeffrey Mfg. Co.
Lamson Corp.
Link-Beit Co.
Lippmann Engineering Works
M-H Standard Corp.
Mathews Conveyer Co., West Coast Mechanical Handling Systems,

Inc.
New London Engineering Co.
Power-Curve Conveyor Co.
Sage Equipment Co., Inc.
Standard Conveyor Co.
Stephens-Adamson Mig. Co.
Wehle Conveyor Co.

CONVEYORS—belt

CONVEYORS—belt

Alden Equipment Div.
Alvey Conveyor Mfg. Co.
Arrow Products, Inc.
A. J. Bayer Co.
Baughman Mfg. Co., Inc.
Bett Corp.
Bodison Mfg. Co.
Bosworth Mfg. Co.
E. W. Buschman Co.
Carter-Miller Co.
Chain Belt Co.
Chantland Manufacturing Co.
J. D. Christian Engineers
Coison Corp.
Colson Equip. & Supply Co.
Conveyor Co.
J. C. Corrigan Co., Inc.
Cost Reduction Equipment Co.
Fairfield Eng. Co.
A. B. Farquinar Div.
Harry J. Ferguson Co.
Flexoveyor Mfg. Co.
Food Machinery & Chemical
Corp.
General Nailing Machine Corp. Food Machinery & Chemical
Corp.
General Nailing Machine Cerp.
Griffith Equip. Co., Inc.
Hewitt-Robins, Inc.
Hurt Conveyor Co.
Island Equip. Corp.
Jeffrey Mfg. Co.
Joy Mfg. Co.
Kolman Manufacturing Co.
Lamson Corp.
Link-Belt Co.
Lippmann Engineering Works
May-Fran Engineering Works
May-Fran Engineering Works
May-Fran Engineering Government & Greene
Mathews Conveyer Co., West
Coast Mechanical Handling Systems, Mechanical Handling Systems, Inc.
Metzgar Conveyor Co.
Metzgar Conveyor Co.
New London Engineering Co.
Noble Co.
Portland Chain Mfg. Co.
Quaker Rubber Div.
Rapids Standard Corp.
Richardson Scale Co.
Sage Equipment Co., Inc.
Saginaw Prod. Corp.
Sandvik Steel, Inc.
Screw Conveyor Pacific Corp.
Standard Conveyor Co.
Stephens-Adamson Mfg. Co.
U. S. Rubber Co.
Universal Hoist Co.
Jervis B. Webb Co. of Calif.
Weigh Right Automatic Scale Co.
West Bend Equipment Corp.
Wilkie Co.

CONVEYORS—bucket

ing

rail

59

Alden Equipment Div.
A. J. Bayer Co.
Baughman Manufacturing Co.,
Inc. Inc.
Bodinson Mfg. Co.
Carter-Miller Co.
Chain Beit Co.
Chantland Manufacturing Co.
J. D. Christian Engineers

Conveyor Co.
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
General Nailing Machine Corp.
Griffith Equip. Co., Inc.
Hewitt-Robins, Inc.
Hurt Conveyor Co.
Jeffrey Mfg. Co.
Link-Belt Co.
Lippmann Engineering Works
Mechanical Handling Systems,
Inc. Inc. M-H Standard Corp. M-H Standard Corp.
Noble Co.
Portland Chain Mfg. Co.
Sage Equip. Co., Inc.
Stephens-Adamson Mfg. Co.
Union Chain & Mfg. Co.
Universal Hoist Co.
Weigh Right Automatic Scale Co.

CONVEYORS-chain or link

CONVEYORS—chain or lin
Alden Equipment Div.
Alvey Conveyor Mfg. Co.
Baughman Mfg. Co., Inc.
A. J. Bayer Co.
Belt Corp.
E. W. Buschman Co.
Bosworth Mfg. Co.
Carter-Miller Co.
Chain Belt Co.
Chain Belt Co.
Chain report Corp.
J. D. Christian Engineers
Colorado Fuel & Iron Corp.
Conveyor Co.
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
A. B. Farquhar Div.
Harry J. Ferguson Co.
Food Machinery & Chemical
Corp.
Corp.
Corp. Corp. Machine Corp.
Corp. Corp. Corp. Machine Corp.
Corp. Corp. Corp. Machine Corp.
Corp. Corp. Machine Corp.
Corp. Corp. Corp. Machine Corp.
Corp. Harry J. Ferguson Co.
Food Machinery & Chemical
Corp.
General Nailing Machine Corp.
Hurt Conveyor Co.
Jeffrey Mig. Co.
Island Equip. Corp.
Link-Belt Co.
Lippmann Engineering Works
M-H Standard Corp.
Mathews Conveyer Co., West
Coast
Mechanical Handling Systems,
Inc.
Metzgar Conveyor Co.
Morse Chain Co.
Portland Chain Mig. Co.
Rapistan-Keystone, Inc.
Richards-Wilcox Mig. Co.
Sage Equipment Co., Inc.
Standard Conveyor Co.
Union Chain & Mig. Co.
Union Chain & Mig. Co.
Union Chain & Mig. Co.
Universal Cranehoist & Monorail
Co.
Jervis B. Webb Co. of Calif Jervis B. Webb Co. of Calif. Wehle Conveyor Co.

CONVEYORS—continuous

flow
Alden Equip. Div.
Alvey Conveyor Mfg. Co.
American Monorail Co.
A. J. Bayer Co.
Bosworth Mfg. Co.
Carter-Miller Co.
Chainveyor Corp.
J. D. Christian Engineers
J. C. Corrigan Co., Inc.
Conveyor Co.
Cost Reduction Equip. Co.
A. B. Farquhar Div.
Fairfield Eng. Co.
Food Machinery & Chemical
Corp.
General Nailing Machine Corp.
Hurt Conveyor Co.
Jeffrey Mfg. Co.
Link-Belt Co.
Link-Belt Co.
Link-Belt Co.
Mathews Conveyer Co., West
Coast
Mathews Conveyer Co., West
Coast
Mechanical Handling Systems. flow Coast Mechanical Handling Systems, Inc.
New London Eng. Co.
Richards-Wilcox Mfg. Co.
Screw Conveyor Pacific Corp.
Standard Conveyor Co.
Stephens-Adamson Mfg. Co.
Universal Cranehoist & Monorail Co. Universal Hoist Co.

CONVEYORS—drag

Alden Equipment Div.
A. J. Bayer Co.
Bodinson Mfg. Co.
Bosworth Mfg. Co.
E. W. Buschman Co.
Carter-Miller Co.

Chain Belt Co.
Chantland Manufacturing Co.
J. D. Christian Engineers
Conveyor Co.
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
A. B. Farquhar Div.
Hurt Conveyor Co.
Jeffrey Mfg. Co.
Link-Belt Co.
Lippmann Eng. Works, Inc.
M-H Standard Corp.
Mathews Conveyer Co., West
Coast Mechanical Handling Systems,

Inc.
Portland Chain Mfg. Co.
Sauerman Bros., Inc.
Stephens-Adamson Mfg. Co.
Union Chain & Mfg. Co.
Jervis B. Webb Co. of Calif.

CONVEYORS—flight

CONVEYORS—flight

Alden Equipment Div.
Baughman Mfg. Co., Inc.
A. J. Bayer Co.
Belt Corp.
Bodinson Mfg. Co.
Bosworth Mfg. Co.
E. W. Buschman Co.
Carter-Miller Co.
Chain Belt Co.
Chain Belt Co.
Chain Belt Co.
Chaintland Manufacturing Co.
J. D. Christian Engineers
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
A. B. Farquhar Div.
Food Machinery & Chemical
Corp.
General Nailing Machine Corp.
Griffith Equip. Co., Inc.
Hurt Conveyor Co.
Jeffrey Mfg. Co.
Link-Belt Co.
Lippmann Eng. Works, Inc.
M-H Standard Corp.
Mathews Conveyer Co., West
Coast
Mechanical Handling Systems, Mechanical Handling Systems, Mechanical Handing
Inc.
Portland Chain Mfg. Co.
Sage Equipment Co., Inc.
Standard Conveyor Co.
Stephens-Adamson Mfg. Co.
Union Chain & Mfg. Co.
Jervis B. Webb Co. of Calif.
Universal Hoist Co.

CONVEYORS—foundry

Alden Equipment Div.
A. J. Bayer Co.
Bosworth Mfg. Co.
E. W. Buschman
Carter-Miller Co.
Chain Belt Co.
Chantland Manufacturing Co.
J. D. Christian Engineers
Cleveland Tramrail Div.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
A. B. Farquhar Div.
Hewitt-Robins, Inc.
Hurt Conveyor Co.
Jeffrey Mfg. Co.
Link-Belt Co.
Lippmann Engineering Works
M-H Standard Corp.
Mathews Conveyer Co., West
Coast
Mechanical Handling Systems Alden Equipment Div. Coast Mechanical Handling Systems, Inc.
Quaker Rubber Div.
Sage Equipment Co., Inc.
Standard Conveyor Co.
Stephens-Adamson Mfg. Co.
Universal Cranehoist & Monorail Inc.

Co. Jervis B. Webb Co. of Calif. **CONVEYORS**—gravity

Alvey Conveyor Manufacturing Co.
A. J. Bayer Co.
Belt Corp.
E. W. Buschman Co.
Carter-Miller Co.
Chantland Manufacturing Co.
J. D. Christian Engineers
Colson Corp.
Colson Corp.
Colson Equipment & Supply Co.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
A. B. Farquhar Div.
Harry J. Ferguson Co.
Food Machinery & Chemical
Corp. Alvey Conveyor Manufacturing

General Nailing Machine Corp.
Griffith Equip. Co., Inc.
Hurt Conveyor Co.
Island Equipment Corp.
Lamson Corp.
Lippmann Engineering Works
Link-Belt Co.
M-H Standard Corp.
McDermott & Greene
Mathews Conveyer Co., West
Coast
Mechanical Handling Systems,
Inc. Inc.
Metzgar Conveyor Co.
Rack Eng. Co. of Calif., Inc.
Rapids Standard Co.
Roll Rite Corp.
Sage Equipment Co., Inc.
Saginaw Prod. Corp.
Standard Conveyor Co.
Stephens-Adamson Mfg. Co.
Jervis B. Webb Co. of Calif.
Wilkie Co.

CONVEYORS—live roller

Alden Equipment Div.
Alvey Conveyor Manufacturing Co Co.
Arrow Products, Inc.
E. W. Buschman Co.
Carter-Miller Co.
Chantland Manufacturing Co.
J. D. Christian Engineers
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
A. B. Farquhar Div.
Harry J. Ferguson Co.
Fairfield Eng. Co.
Food Machinery & Chemical
Corp. Food Machinery & Chemical Corp.
Griffith Equip. Co., Inc.
Hurt Conveyor Co.
Island Equipment Corp.
Lamson Corp.
Lippmann Engineering Works
M-H Standard Corp.
Mathews Conveyer Co., West
Coast Coast Mechanical Handling Systems, Mechanical Handling Systems. Inc.
Metzgar Conveyor Co.
Rapids Standard Co.
Sage Equipment Co.
Saginaw Prod. Corp.
Jervis B. Webb Co. of Calif.

CONVEYORS—overhead

Alden Equipment Div. Alvey Conveyor Mfg. Co. American Monorail Co., American Monorail Co.,
Conveyor Div.
A. J. Bayer Co.
E. W. Buschman Co.
Chainveyor Corp.
J. D. Christian Engineers
Cleveland Tramrail Div.
Cost Reduction Equip. Co.
A. B. Farquhar Div.
Food Machinery & Chemical
Corp.
General Nailing Machine Corp.
Hurt Conveyor Co.
Lamson Corp.
Link-Belt Co.
Lippmann Engineering Works
Louden Machinery Co.
M-H Standard Corp.
Mathews Conveyer Co., West
Coast Coast Mechanical Handling Systems, Inc Inc.
Rapids Standard Co.
Rapiston-Keystone, Inc.
Richards-Wilcox Mfg. Co.
Spray King Inc.
Universal Cranehoist &
Monorail Co.
Jervis B. Webb Co. of Calif.

CONVEYORS—pallet

Alden Equipment Div. Alvey Conveyor Manufacturing Alvey Conveyor Manufacturin Co.
A. J. Bayer Co.
E. W. Buschman Co.
J. D. Christian Engineers
J. C. Corrigan Co., Inc.
Colson Corp.
Cost Reduction Equip. Co.
A. B. Farquhar Div.
Harry J. Ferguson Co.
Flexoveyor Mfg. Co.
Fairfield Eng. Co.
Food Machinery & Chemical
Corp. Food Machinery & Chemical Corp.
Hurt Conveyor Co.
Island Equipment Corp.
Jeffrey Mfg. Co.
Lamson Corp.
Link-Belt Co.
Lippmann Engineering Works
M-H Standard Corp.
Mathews Conveyer Co., West
Coast

CONVEYORS, pneumatic — CRANES, overhead electric

Mechanical Handling Systems, Mechanical Handling
Inc.
Rack Engineering Co. of Calif.,
Inc.
Rapids Standard Co.
Roll Rite Corp.
Sage Equipment Co.
Standard Conveyor Co.
Wehle Conveyor Co.

CONVEYORS—pneumatic

J. D. Christian Engineers Cost Reduction Equip. Co. Day Co.
Hurt Conveyor Co.
Lamson Corp.

CONVEYORS—portable

Alden Equipment Div. Alvey Conveyor Manufacturing Co. Arrow Products, Inc. Barber-Greene Co. Baughman Manufacturing Co., Barber-Greene Co.
Baughman Manufacturing Co., Inc.
A. J. Bayer Co.
Belt Corp.
Bodinson Mfg. Co.
Bosworth Mfg. Co.
E. W. Buschman Co.
Carter-Miller Co.
Chantland Manufacturing Co.
J. D. Christian Engineers
J. C. Corrigan Co., Inc.
Colson Equipment & Supply Co.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
A. B. Farquhar Div.
Harry J. Ferguson Co.
Flexoveyor Mfg. Co.
Food Machinery & Chemical
Corp.
General Nailing Machine Corp.
Griffith Equip. Co., Inc.
Hurt Conveyor Co.
Island Equipment Corp.
Joy Mfg. Co.
Kolman Mfg. Co.
Lamson Corp.
Lippmann Engineering Works
Link-Belt Co.
M-H Standard Corp.
Mathews Conveyer Co., West
Coast
McDermott & Greene
Mechanical Handling Systems,
Inc.
Metzgar Conveyor Co. Inc.
Metzgar Conveyor Co.
New London Eng. Co.
Paramount Mfg. Co.
Portland Chain Mfg. Co.
Power-Curve Conveyor Co.
Rapids Standard Corp.
Richardson Scale Co.
Roll Rite Corp.
Sage Equipment Co.
Standard Conveyor Co.
Jervis B. Webb Co. of Calif.
Universal Hoist Co. Inc.

CONVEYORS—screw

Aiden Equipment Div.
Baughman Manufacturing Co.,
Inc.
Carter-Miller Co.
Chain Belt Co.
Chantland Manufacturing Co.
J. D. Christian Engineers J. D. Christian Engineers
Conveyor Co.
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
Griffith Equip. Co., Inc.
Hurt Conveyor Co.
Jeffrey Mfg. Co.
Link-Belt Co.
Lipmann Engineering Works
Mechanical Handling Systems,
Inc.
M-H Standard Corp.
New London Eng. Co.
Noble Co.
Richardson Scale Co.
Screw Conveyor Pacific Corp.

CONVEYORS—skate

Screw Conveyor Pacific Corp Stephens-Adamson Mfg. Co.

Alvey Conveyor Manufacturing Co.
A. J. Bayer Co.
Arrow Products, Inc.
E. W. Buschman Co.
Carter-Miller Co.
Chantland Manufacturing Co.
J. D. Christian Engineers J. D. Christian Engineers Colson Corp. Colson Equipment & Supply Co. Conveyor Co. Cost Reduction Equip. Co. Fairfield Eng. Co. A. B. Farquhar Div.

Harry J. Ferguson Co.
Food Machinery & Chemical
Corp.
General Nailing Machine Corp.
Griffith Equip. Co., Inc.
Hurt Conveyor Co.
Island Equipment Corp.
Lamson Corp.
Link-Belt Co.
M-H Standard Corp.
McDermott & Greene
Mcchanical Handling Systems,
Inc.

Inc. Metzgar Conveyor Co. Rack Engineering Co. of Calif., Inc.
Roll Rite Corp.
Sage Equipment Co., Inc.
Standard Conveyor Co.
Wilkie Co.

CONVEYORS—slat

Alden Equipment Div. Alvey Conveyor Manufacturing Alden Equipment Div.
Alvey Conveyor Manufacturing
Co.
A. J. Bayer Co.
Bemis Bro. Bag Co.
Bemis Bro. Bag Co.
Godinson Mfg. Co.
E. W. Buschman Co.
Carter-Miller Co.
Chain Belt Co.
Chain Belt Co.
Chain Belt Co.
Chain Belt Co.
Chain Inc.
Cost Reduction Engineers
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
Harry J. Ferguson Co.
Food Machinery & Chemical
Corp.
Griffith Equip. Co., Inc.
Hurt Conveyor Co.
Jeffrey Mfg. Co.
Lamson Corp.
Link-Belt Co.
Lippmann Engineering Works
M-H Standard Corp.
Mathews Conveyer Co., West
Coast
Mechanical Handling Systems.

Coast Mechanical Handling Systems,

Inc.
Sage Equipment Co., Inc.
Standard Conveyor Co.
Union Chain & Mfg. Co.
Jervis B. Webb Co. of Calif.

CONVEYORS—trolley

Alden Equipment Div.
American Monorail Co.
A. J. Bayer Co.
E. W. Bushman Co.
J. D. Christian Eng.
Cleveland Tramrail Div.
Cost Reduction Equip. Co.
A. B. Farquhar Div.
Hurt Conveyor Co.
Lamson Corp.
Link-Belt Co.
M-H Standard Corp.
Mathews Conveyer Co., West
Coast Coast
Mechanical Handling Systems,
Inc.
Richards-Wilcox Mfg. Co.

Sage Equip. Co., Inc.
Saginaw Prod. Corp.
Universal Cranehoist &
Monorail Co.
Jervis B. Webb Co. of Calif.

CONVEYORS—vibrating

CONVEYORS—vibrating
Alden Equip. Div.
Ajax Flexible Coupling Co.
Carrier Conveyor Corp.
J. C. Corrigan Co., Inc.
J. D. Christian Engineers
Cost Reduction Equip. Co.
Fairfield Eng. Co.
General Nailing Machine Corp.
Hewitt-Robins, Inc.
Hurt Conveyor Co.
Jeffrey Mfg. Co.
Link-Belt Co.
M-H Standard Corp.
Simplicity Engineering Co.
Stephens-Adamson Mfg. Co.
Syntron Co.

CONVEYORS—zipper

J. D. Christian Eng. Cost Reduction Equip. Co. Hurt Conveyor Co. Stephens-Adamson Mfg. Co

CONVEYORS—special and

American Pulley Co. (drives) Bosworth Mfg. Co. (vertical, magnetic) E. W. Buschman Co.

Cambridge Wire Cloth Co.
Chainteyor Corp. (power, free)
J. D. Christian Engineers
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
(steel belt)
Dearborn Fabricating & Eng.
Co. (cable link)
Fairfield Eng. Co.
Flexoveyor Mfg. Co.
Homer Mfg. Div. (magnetic)
E. C. Horne Machinery Co.
(flexible)
International Conveyor &
Washer Corp.
Island Equipment Corp.
Jeffrey Mfg. Co.
Link-Belt Co.
Mathews Conveyer Co., West
Coast
Mechanical Handling Systems,
Inc. (vertical)
New London Eng. Co.
Sandvik Steel, Inc.
Sandvik Steel, Inc.
Sandvik Steel, Inc.
Stephens-Adamson Mfg. Co.
(passenger)
Universal Cranehoist & Monorail (passenger) Universal Cranehoist & Monorail Co. Jeryis B. Webb Co. of Calif.

CRANES-charging and

drawing Alden Equipment Div.
Crane Hoist Eng. Corp.
Ederer Eng. Co.
Harnischfeger Corp.
Moffett Eng. Co.
Shaw Box Crane & Hoist Div.
Shepard Niles Crane & Hoist Corp. Vanguard Eng. Co.

CRANES—gantry

Alden Equipment Div.
All-State Engineering Co., Inc.
American Crane & Hoist Corp.
American Hoist & Derrick Co.
American Monorall Co.
Berger Engineering Co.
Borg-Warner Industrial Cranes
Cleveland Tramrail Div.
Clyde Iron Works
Colby Steel & Manufacturing,
Inc. Clyde Iron Works
Colby Steel & Manufacturing,
Inc.
Cost Reduction Equip. Co.
Crane Hoist Engineering Corp.
CraneVeyor Corp.
Cyclops Iron Works
Ederer Engineering Co.
Forker Corp.
Harnischfeger Corp.
Harnischfeger Corp.
Harrington Co.
Louden Machinery Co.
Moffett Eng. Co.
Stanley E. Morris Co.
Pacific Coast Engineering Co.
Pacific Coast Engineering Co.
Philadelphia Hoist Div.
Rack Engineering Co. of
California, Inc.
Robbins & Myers, Inc.
Schultz Materials Handling Corp.
Shaw Box Crane & Hoist Div.
Spanmaster Crane Div.
Shepard Niles Crane & Hoist
Corp.
Star Iron & Steel Co. Corp. Star Iron & Steel Co. Universal Cranehoist & Monorail Co.
Washington Iron Works
Jervis B. Webb Co.
Yuba Consolidated Industries,

CRANES—hand power

CRANES—hand power
Alden Equipment Div.
All-State Engineering Co., Inc.
American Crane & Hoist Corp.
American Monorail Co.
Barrett-Cravens Co.
Borg-Warner Industrial Cranes
Chisholm-Moore Hoist Div.
Cleveland Tramrail Div.
Cost Reduction Equipment Co.
Crane Hoist Engineering Corp.
CraneVeyor Corp.
Cyclops Iron Works
Downs Crane & Hoist Co.
Ederer Engineering Co.
Forker Corp.
Harnischfeger Corp.
Harrington Co. Harnischfeger Corp.
Harrington Co.
Lewis-Shepard Prod., Inc.
Moffett Eng. Co.
Stanley E. Morris Co.
Philadelphia Hoist Div.
Revolvator Co.
Richards-Wilcox Mfg. Co.
Robbins & Myers, Inc.

Ruger Equip., Inc.
Shaw Box Crane & Hoist Div.
Schultz Materials Handling Corp.
Shepard Niles Crane & Hoist
Spanmaster Crane Div.
Corp.
Star Iron & Steel Co. Stratton Equip. Co.
Uhrden, Inc.
Universal Cranehoist & Monorail
Co. Vanguard Eng. Co. Jervis B. Webb Co. Wright Hoist Div.

CRANES-jib, pillar, swing,

bracket
Aiden Equipment Div.
All-State Engineering Co., Inc.
American Crane & Hoist Corp.
American Monorall Co.
Austin-Western Div.
Berger Engineering Co.
Cleveland Tramrall Div.
Colese Cranes, Inc.
Cost Reduction Equip. Co.
Crane Hoist Engineering Corp.
Crane Hoist Co.
Forker Corp.
Harrington Co.
Louden Machinery Co.
Moffett Eng. Co.
Stanley E. Morris Co.
Philadelphia Hoist Div.
Richards-Wilcox Mfg. Co.
Ruger Equip., Inc.
Schultz Materials Handling Corp.
Shaw Box Crane & Hoist Div.
Shepard Niles Crane & Hoist
Corp.
Spanmaster Crane Div.
Star Iron & Steel Co.
Universal Cranehoist & Monorail
Co.
Vanguard Eng. Co.
Lervis R. Webb. Co. bracket

Vanguard Eng. Co. Jervis B. Webb Co. Wright Hoist Div. Yuba Consolidated Industries,

CRANES—overhead, double

beam
Alden Equip. Div.
All-State Engineering Co., Inc.
American Crane & Hoist Corp.
American Crane & Hoist Corp.
American Monorall Co.
Berger Engineering Co.
Berger Engineering Co.
Borg-Warner Industrial Cranes
Cleveland Tramrail Div.
Crane Hoist Engineering Corp.
CraneVeyor Corp.
Cyclops Iron Works
Detroit Hoist & Machine Co.
Downs Crane & Hoist Co.
Ederer Engineering Co.
Forker Corp.
Harnischfeger Corp.
Louden Machinery Co.
Moffett Eng. Co.
Pacific Coast Eng. Co.
Philadelphia Hoist Div.
Robbins & Myers, Inc.
Schultz Materials Handling Corp.
Shapmaster Crane & Hoist Corp.
Snapmaster Crane Div. Corp.

Corp.
Spanmaster Crane Div.
Star Iron & Steel Co.
Universal Cranehoist & Monorail
Co.
Jervis B. Webb Co.
Wright Hoist Div.
Yuba Consolidated Industries,

CRANES-overhead, electric

and electric traveling and electric traveling
Alden Equipment Div.
All-State Engineering Co., Inc.
American Crane & Hoist Corp.
American Monorail Co.
Baker Industrial Trucks
Berger Engineering Co.
Cleveland Tramrail Div.
Colby Steel & Mfg., Inc.
Crane Hoist Engineering Corp.
CraneVeyor Corp.
Cyclops Iron Works
Detroit Hoist & Machine Co.
Downs Crane & Hoist Co.
Ederer Engineering Co. Forker Corp.
Harnischfeger Corp.
Industrial Crane & Hoist
Louden Machinery Co.
Moffett Eng. Co.
Pacific Coast Engineering Co.
Philadelphia Hoist Div.
Richards-Wilcox Mfg. Co.
Robbins & Myers, Inc.
Schultz Materials Handling Corp.
Shaw Box Crane & Hoist Div.
Shepard Niles Crane & Hoist
Corp.
Spanmaster Crane Div.
Star Iron & Steel Co.
Universal Cranehoist & Monorail
Co.
Div. Webb. Co.

Jervis B. Webb Co. Wright Hoist Div. Yuba Consolidated Industries, Inc.

CRANES-overhead,

foundry
Alden Equipment Div.
Ali-State Engineering Co., Inc.
American Monorail Co.
Berger Eng. Co.
Berger Eng. Co.
Berger Eng. Co.
Crane Hoist Engineering Corp.
Crane Hoist Engineering Corp.
CraneVeyor Corp.
Cyclops Iron works
Detroit Hoist & Machine Co.
Ederer Engineering Co.
Forker Corp.
Harnischfeger Corp.
Harnington Corp.
Louden Machinery Co.
Moffett Eng. Co.
Pacific Coast Engineering Co.
Richards-Wicox Mig. Co.
Robbins & Myers, Inc.
Schultz Materials Handling Corp.
Shaw Box Crane & Hoist Div.
Shepard Niles Crane & Hoist
Corp.
Snanmaster Crane Div. foundry

Corp.
Spanmaster Crane Div.
Star Iron & Steel Co.
Universal Cranehoist & Monorail
Co.
Jervis B. Webb Co.
Yuba Consolidated Industries.

CRANES-overhead, hand

power traveling
Alden Equipment Div.
All-State Engineering Co., Inc.
American Crane & Hoist Corp.
American Monorall Co.
Borgs-Eng. Co.
Borgs-Warner Industrial Cranes
Chisolm-Moore Hoist Div.
Cleveland Tramrall Div.
Cost Reduction Equip. Co.
Crane Hoist Engineering Corp.
CraneVeyor Corp.
Cyclops Iron Works
Downs Crane & Hoist Co.
Ederer Engineering Co.
Forker Corp.
Harnischfeger Corp.
Harrington Co.
Louden Machinery Co.
Moffett Eng. Co.
Richards-Wilcox Mfg. Co.
Robbins & Myers, Inc.
Schultz Materials Handling Corp.
Shaw Box Crane & Hoist Div.
Shepard Nies Crane & Hoist
Corp.
Spanmaster Crane Div.
Star Iron & Steel Co.
Universal Cranehoist & Monorall
Co.
Jervis B. Webb Co. power traveling

Jervis B. Webb Co. Wright Hoist Div.

CRANES-overhead,

"I" beam "" beam
Alden Equipment Div.
All-State Engineering Co., Inc.
American Crane & Hoist Corp.
Berger Eng. Co.
Borg-Warner Industrial Cranes
Chisholm-Moore Hoist Div.
Cost Reduction Equip. Co.
Crane Hoist Engineering Corp.
CraneVeyor Corp.
Cyclops Iron Works
Detroit Hoist & Machine Co.
Downs Crane & Hoist Co.
Ederer Engineering Co.
Harnischfeger Corp.
Harnischfeger Corp.
Larington Co.
Louden Machinery Co.
Moffett Eng. Co.
Philadelphia Hoist Div.

Richards-Wilcox Mfg. Co.
Robbins & Myers, Inc.
Shaw Box Crane & Hoist Div.
Schultz Materials Handling Corp.
Shepard Niles Crane & Hoist
Corp.
Spanmaster Crane Div.
Star Iron & Steel Co.
Universal Cranehoist & Monorail
Co.
Jervis B. Webb Co.
Wright Hoist Div.
Yuba Consolidated Ind. Inc.

CRANES—overhead,

monorail
Alden Equipment Div.
All-State Engineering Co., Inc.
American Crane & Hoist Corp.
American Monorail Co.
Borg-Warner Industrial Cranes
Cleveland Tramrail Div.
Cost Reduction Equip. Co.
Chrisholm-Moore Hoist Div.
Crane Hoist Engineering Co.
CraneVeyor Corp.
Cyclops Iron Works
Detroit Hoist & Machine Co.
Ederer Engineering Co.
Forker Corp.
Louden Machinery Co.
Philadelphia Hoist Div.
Richards-Wilcox Mg. Co.
Robbins & Myers, Inc.
Schultz Materials Handling Corp.
Shaw Box Crane & Hoist Div.
Shepard Niles Crane & Hoist
Corp.
Spanmaster Crane Div. monorail Corp.
Spanmaster Crane Div.
Star Iron & Steel Co.
Universal Cranehoist & Monorail Co. Wright Hoist Div.

CRANES-yard (truck,

tractor)
Allis-Chalmers Mfg. Co.
American Hoist & Derrick Co.
Anthony Co.
Austin-Western Div.
Baker Industrial Trucks
Bucyrus-Erie Co.
Coles Cranes, Inc.
Cost Reduction Equip. Co.
Daybrook Hydraulic Div.
John Deere Ind. Div.
Gar Wood Industries, Inc.
Hanson Clutch & Machinery Co.
Harnischfeger Corp.
"HH" Manufacturers
Hughes-Keenan Corp.
Hyster Co.
Marion Power Shovel Co.
Marion Power Shovel Co.
Massey-Ferguson Industrial Div.
Northwest Eng. Co.
"Quick-Way" Truck Shovel Co.
Ruger Equip., Inc.
Shaw Box Crane & Hoist Div.
Shield Bantam Co.
Silent Hoist & Crane Co.
Thew Shovel Co.
Thew Shovel Co.
Towmotor Corp.
Unit Crane & Shovel Corp.
Vanguard Eng. Co. tractor)

CRANES—other

Austin-Western Div. (hydraulic)
L. B. Foster Co. (rail)
Insley Mfg. Corp.
(self-propelled, rubber-tired)
Kolman Mfg. Co.
Mefco Sales & Service Inc.
(controls) Mefco Sales & Service Inc.
(controls)
Philadelphia Hoist Div.
Revolvator Co. (portable)
Shepard Niles Crane & Hoist
Corp. (grab bucket)
Shaw Box Crane & Hoist Div.
(hydraulic)
Specification Packaging Engr.
Corp.
Vanguard Eng. Co.
(counter balanced, indoor,
mobile, floor)

DOCK BOARDS

Autoquip Corp.
A. J. Bayer Co.
Beacon Machinery, Inc.
Brooks & Perkins, Inc.
Cost Reduction Equip. Co.
Fab-Weld Corp.
Hartman Metal Fabricators, Inc.
Karl A. Herman Co.
Kelley Co., Inc.
F. H. Langsenkamp Co.
Magline, Inc.
Magnesium Co. of America
Magnesium Fabricators, Inc.

McDermott & Greene Paltier Corp. Penco Engineering Co. Roll Rite Corp. Rowe Methods, Inc.

DOLLIES—(see TRUCKS dolly)

DOOR CONTROLS

J. D. Christian Eng. National Pneumatic Co., Inc. Richards-Wilcox Manufacturing Co.

ELEVATORS—barrel,

pacakge, etc.
A. J. Bayer Co.
Barrett-Cravens Co.
Beacon Machinery, Inc.
Bodinson Mfg. Co.
Chain Belt Co.
J. D. Christian Engineers
Cost Reduction Equip. Co.
Economy Engineering Co.
Fairfield Eng. Co.
Griffith Equip. Co., Inc.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
M-H Standard Corp.
Mechanical Handling Systems,
Inc.
Roll Rite Corp.
West Bend Equipment Corp.

ELEVATORS—belt

ELEVATORS—belt
Alden Equipment Div.
Aldis-Chaimers Mfg. Co.
Baughman Mfg. Co., Inc.
Bodinson Mfg. Co.
Bosworth Mfg. Co.
Carter-Miller Co.
Chain Belt Co.
J. D. Christian Engineers
Conveyor Co.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
General Nailing Machine Corp.
Hewitt-Robins, Inc.
Humphrey Elevator Co.
Island Equip. Corp.
Jeftrey Mfg. Co.
Link-Belt Co.
M-H Standard Corp.
Manhattan Rubber Div.
Mechanical Handling Systems,
Inc.
Metzgar Conveyor Co.

Inc.
Metzgar Conveyor Co.
Noble Co.
Stephens-Adamson Mfg. Co.
Universal Hoist Co.
U. S. Rubber Co.

ELEVATORS—bucket

Alden Equipment Div.
Barber-Greene Co.
Baughman Mfg. Co., Inc.
Bodinson Mfg. Co.
Co.
Bosworth Mfg. Co.
Carter-Miller Co.
Chain Belt Co.
J. D. Christian Engineers
Conveyor Co. J. D. Christian Engineers
Conveyor Co.
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
Fairfield Eng. Co.
General Nailing Machine Corp.
Hewitt-Robins, Inc.
Jeffrey Mfg. Co.
Link-Belt Co.
Lippmann Engineering Works
M-H Standard Corp.
Mechanical Handling Systems,
Manhattan Rubber Div.
Inc.

Inc.
Noble Co.
Rapids Machinery Co., Inc.
Screw Conveyor Pacific Corp.
Stephens-Adamson Mfg. Co.
Union Chain & Mfg. Co.
Universal Hoist Co.

ELEVATORS—continuous

flow flow
Carter-Miller Co.
J. D. Christian Engineers
Cost Reduction Equip. Co.
Fairfield Eng. Co.
General Nailing Machine Corp.
Link-Beit Co.
Jeffrey Mfg. Co.
M-H Standard Corp.

Mechanical Handling Systems. Inc.
Screw Conveyor Pacific Corp.
Stephens-Adamson Mfg. Co.
Universal Hoist Co.
Weigh Right Automatic Scale Co.

ELEVATORS—portable

tiering tiering
American Pulley Co.
Autoquip Corp.
Barrett-Cravens Co.
Beacon Machinery, Inc.
Big Joe Mfg. Co.
J. D. Christian Eng.
Colson Corp.
Colson Equipment & Supply Co.
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
Economy Engineering Co.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
M-H Standard Corp.
Revolvator Co.
Roll Rite Corp.
Tubular Structures Corp.
of America of America West Bend Equipment Co.

ELEVATORS—other

Barrett-Cravens Co. (portable, stationary, hand, electric)
Carrier-Conveyor Corp. (vibrating spiral)
J. D. Christian Engineers
Colby Steel & Mfg. Inc. (marine, freight)
Fairfield Eng. Co. (inclined)
Field Eng. Prod. Co.
Fort Worth Steel & Machinery
Co. Co.
Griffith Equip. Co., Inc. (stacking)
Humphrey Elévator Co. (manlift) Link-Belt Co.

GRABS

Cady Metal Fabricating Co.
Cleveland Tramrail Div.
Cost Reduction Equip. Co.
Cullen-Friestedt Co.
Cyclops Iron Works
Downs Crane & Hoist Co.
Elizabeth Iron Works, Inc.
Fab-Weld Corp.
Hyster Co.
Merrill Brothers
Stanley E. Morris Co.
McDermott & Greene
Rack Engineering Co. of Calif.,
Inc. Universal Cranehoist & Monorail Co.

GRAPPLES

Cullen-Friestedt Co.
Cyclops Iron Works
Downs Crane & Hoist Co.
Ederer Engineering Co.
Joy Mfg. Co.
Stanley E. Morris Co.
Schield Bantam Co.
Star Iron & Steel Co.
Universal Cranehoist & Monorail

HOISTS—air

American Crane & Hoist Corp.
American Monorail Co.
Aro Equipment Corp.
Cleveland Tramrail Div.
Cost Reduction Equip. Co.
Crane Hoist Eng. Co.
Crane Hoist Eng. Co.
Crane Hoist & Machine Co.
Engineering Prod. Co.
Forker Corp.
Gardner-Denver Co.
Ingersoll-Rand Co.
Joy Mfg. Co.
Remco Mfg. Co.
Schultz Materials Handling
Corp. Schultz Materials Manager Corp.
Shaw Box Crane & Hoist Div.
Shepard Nies Crane & Hoist
Corp.
Thor Power Tool Co.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

HOISTS—bucket

Cost Reduction Equip. Co. Crane Hoist Eng. Co. Cyclops Iron Works Harnischfeger Corp. Shaw Box Crane & Hoist Div.

HOISTS, chain - L-P GAS EQUIPMENT

Shepard Niles Crane & Hoist Corp. Stephens-Adamson Mfg. Co.

HOISTS—chain

HOISTS—chain

American Crane & Hoist Corp.
American Monorail Co.
Chisholm-Moore Hoist Div.
J. D. Christian Eng.
Cleveland Tramrail Div.
Coffing Hoist Div.
Cost Reduction Equip. Co.
Crane Hoist Eng. Corp.
CraneVeyor Corp.
Cyclops Iron Works
Duff-Norton Co.
Forker Corp.
Harnischfeger Corp.
Harrinschfeger Corp.
Harrinschfeger Corp.
Harrinschfeger Corp.
Harrinsch Go.
Ingersoil-Rand Co.
McDermott & Greene
Stanley E. Morris Co.
Pacific Coast Eng. Co.
Philadelphia Hoist Div.
Robins & Myers, Inc.
Schultz Materials Handling Corp.
Shaw Box Crane & Hoist Div.
Thern Machine Co.
Thor Power Tool Co.
Universal Cranehoist & Monorail
Co.
Wright Hoist Div.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

HOISTS—crane

HOISTS—crane

HOISTS—crane

Alden Equip. Div.
American Crane & Hoist Corp.
American Hoist & Derrick Co.
American Monorail Co.
Berger Engineering Co.
Cleveland Tramrail Div.
Clyde Iron Works
Cost Reduction Equip. Co.
Crane Hoist Eng. Co.
CraneVeyor Corp.
Cyclops Iron Works
Downs Crane & Hoist Co.
Ederer Engineering Co.
Forker Corp.
Harrington Co.
"Hi" Manufacturers
Stanley E. Morris Co.
Pacific Coast Eng. Co.
Philadelphia Hoist Div.
Robbins & Myers, Inc.
Ruger Equip., Inc.
Schultz Materials Handling
Corp.
Shaw Hox Crane & Hoist Div. Corp.
Shaw Box Crane & Hoist Div.
Shepard Niles Crane & Hoist
Corp. Corp. Skagit Steel & Iron Works Spanmaster Crane Div. Uhrden, Inc. Universal Cranehoist & Monorail Co. Washington Iron Works Yuba Consolidated Ind., Inc.

HOISTS—derrick

American Hoist & Derrick Co. Cost Reduction Equip. Co. Cyclops Iron Works Clyde Iron Works Downs Crane & Hoist Co. Skagit Steel & Iron Works Washington Iron Works Yuba Consolidated Ind., Inc.

HOISTS-drum

American Eng. Co.
American Crane & Hoist Corp.
Barrett-Cravens Co.
Berger Engineering Co.
J. D. Christian Engineers
Chisholm-Moore Hoist Div.
Cleveland Tramrail Div.
Cleveland Tramrail Div.
Clyde Iron Works
Cost Reduction Equip. Co.
Cyclops Iron Works
Downs Crane & Hoist Co.
Ederer Engineering Co.
Electrolift. Inc.
Gardner-Denver Co.
Harrington Co.
Hewitt-Robins, Inc.
Ingersoll-Rand Co.
Robbins & Myers, Inc.
Skagit Steel & Iron Works
Sauerman Bros., Inc.
Washington Iron Works
Yale & Towne Mfg. Co.
Yale Materials Handling Div.
Yuba Consolidated Industries,
Inc.

HOISTS-electric

Alden Equipment Div.
American Crane & Hoist Corp.
American Engineering Co.

American Hoist & Derrick Co.
American Monorail Co.
Barrett-Cravens Co.
Berger Engineering Co.
Big Joe Mig. Co.
Chisholm-Moore Hoist Div.
J. D. Christian Engineers
Cleveland Tramrail Div.
Clyde Iron Works
Coffing Hoist Div.
Coby Steel & Mig., Inc.
Cost Reduction Equip. Co.
Crame Hoist Eng. Co.
Crame Hoist Eng.
Co.
Crame Hoist Eng.
Co.
Crame Hoist Co.
Downs Crame & Hoist Co.
Duff-Norton Co.
Ederer Engineering Co.
Electrolift, Inc.
Forker Corp. Ederer Engineering Co.
Electroliff, Inc.
Forker Corp.
Globe Hoist Co.
Harnischfeger Corp.
Harrington Co.
Hewitt-Robins, Inc.
Ingersoll-Rand Co.
Joy Mfg. Co.
Stanley E. Morris Co.
Pacific Coast Eng. Co.
Philadelphia Hoist Div.
Robbins & Myers, Inc.
Sauerman Bros., Inc.
Sauerman Bros., Inc.
Schultz Materials Handling Corp.
Shaw Box Crane & Hoist Div.
Shepard Niles Crane & Hoist Corp.
Skagit Steel & Iron Works
Stephens-Adamson Mfg. Co.
Universal Cranehoist & Monorail
Co.
Washington Iron Works
Wright Hoist Div.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.
Yuba Consolidated
Industries, Inc.

HOISTS—gasoline

American Hoist & Derrick Co. Berger Eng. Co. Clyde Iron Works J. D. Christian Eng. Colby Steel & Mig., Inc. Cost Reduction Equip. Co. "HH" Mig. Co. Joy Mig. Co. Pactific Coast Eng. Co. Sauerman Bros., Inc. Skagit Steel & Iron Works Washington Iron Works

HOISTS—hand

HOISTS—hand
American Crane & Hoist Corp.
Barrett-Cravens Co.
Chisholm-Moore Hoist Div.
Coffing Hoist Div.
Cost Reduction Equip. Co.
Crane Hoist Eng. Co.
Crane Hoist Eng. Co.
CraneVeyor Corp.
Cyclops Iron Works
Duff-Norton Co.
Forker Corp.
Griphoist, Inc.
Harrington Co.
Stanley E. Morris Co.
Philadelphia Hoist Div.
Robbins & Myers, Inc.
Schultz Materials Handling Corp.
Shaw Box Crane & Hoist Div.
Skagit Steel & Iron Works
Thern Machine Co.
Universal Cranehoist & Monorail
Co.
Wright Hoist Div. Co. Wright Hoist Div. Yale & Towne Mfg. Co. Yale Materials Handling Div.

HOISTS-hydraulic

HOISTS—hydraulic
Anthony Co.
Antony Co.
Austin-Western Div.
Autoquip Corp.
Big Joe Mfg. Co.
Cleveland Tramrail Div.
Cost Reduction Equip. Co.
Curtis Mfg. Co.
Daybrook Hydraulic Div.
Engineering Prod. Co.
G. W. Galloway Co.
Gar Wood Industries, Inc.
Globe Hoist Co.
"HH" Mfg.
McDermott & Greene
Pacific Coast Eng. Co.
Remco Mfg. Co.
Ruger Equip., Inc.
Shaw Box Crane & Hoist Div.
Skagit Steel & Iron Works
Tubular Structures Corp.
of America
Unrden, Inc.
Unit Mfg. Co.

HOISTS—monorail

Adden Equipment Div.
American Crane & Hoist Corp.
American Engineering Co.
American Engineering Co.
American Monorail Co.
Chisholm-Moore Hoist Div.
Cleveland Tramrail Div.
Cost Reduction Equip. Co.
Crane Hoist Eng. Co.
CraneVeyor Corp.
Cyclops Iron Works
Detroit Hoist & Machine Co.
Duff-Norton Co.
Ederer Eng. Co.
Electrolift, Inc.
Forker Corp.
Harnischfeger Corp.
Harrinschfeger Corp. Harnischfeger Corp.
Harrington Co.
Louden Machinery Co.
Philadelphia Hoist Div.
Robbins & Myers, Inc.
Schultz Materials Handling Corp.
Shaw Box Crane & Hoist Div.
Shepard Niles Crane Hoist Corp.
Universal Cranehoist & Monorall
Co.

Co. Wright Hoist Div. Yale & Towne Mfg. Co. Yale Materials Handling Div.

HOISTS—portable

HOISTS—portable
Autoquip Corp.
Big Joe Mfg. Co.
Chisholm-Moore Hoist Div.
J. D. Christian Eng.
Coffing Hoist Div.
Cost Reduction Equip. Co.
CraneVeyor Corp.
Duff Norton Corp.,
Coffing Hoist Div.
Globe Hoist Co.
Griphoist, Inc.
"HH" Mfg.
Harnischeger Corp.
Harrington Co.
Ingersoll-Rand Co.
Joy Mfg. Co.
McDermott & Greene
Stanley E. Morris Co.
Philadelphia Hoist Div.
Robbins & Myers, Inc.
Ruger Equip., Inc.
Shaw Box Crane & Hoist Div.
Tubular Structures Corp. of
America
Unt Mfg. Co.
Yale & Towne Mfg. Co.
Yale & Towne Mfg. Co.
Yale & Towne Mfg. Co.
Yale America

HOISTS-skip

J. D. Christian Engineers
Cost Reduction Equip. Co.
Cyclops Iron Works
Fairfield Eng. Co.
Hewitt-Robins, Inc.
Skagit Steel & Iron Works
Stephens-Adamson Mfg. Co.
Washington Iron Works
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

HOISTS—traveling

HOISTS—traveling

Alden Equipment Div.
American Crane & Hoist Corp.
American Monorail Co.
Cleveland Tramrail Div.
Coffing Hoist Div.
Cost Reduction Equip. Co.
Crane Hoist Eng. Co.
CraneVeyor Corp.
Cyclops Iron Works
Detroit Hoist & Machine Co.
Downs Crane & Hoist Co.
Ederer Engineering Co.
Electrolift, Inc.
Forker Corp.
Harnischfeger Corp.
Harnischfeger Corp.
Harrington Co.
Stanley E. Morris Co.
Pacific Coast Eng. Co.
Robbins & Myers, Inc.
Schultz Materials Handling Corp.
Shaw Box Crane & Hoist Div.
Shepard Niles Crane & Hoist
Corp.
Skagit Steel & Iron Works
Universal Cranehoist & Monorail
Co.

HOISTS—other

Chisholm-Moore Hoist Div. Cristoff lever)
Ingersoil-Kalamazoo Div.
(truck-mounted)
Mefco Sales & Service, Inc.
Thern Machine Co. (lever)
U. S. Plastic Rope, Inc.
Vac-U-Lift Co.

HOPPERS

Alden Equipment Div. Brummeler Steel Prod. Corp.

J. C. Corrigan Co., Inc.
Equipment Mfg., Inc.
Fairfield Eng. Co.
Fairfield Eng. Co.
Fab-Weld Corp.
Gar-Bro. Mfg. Co.
Gar Wood Industries, Inc.
General Nailing Machine Corp.
Lippmann Eng. Works, Inc.
Noble Co.
Paramount Mfg. Co.
Stackbin Corp.
Vanguard Eng. Co.

IDLERS-conveyor

Barber-Greene Co.
Barber-Greene Co.
Bodinson Mfg. Co.
J. D. Christian Eng.
Conveyor Co.
Fairfield Eng. Co.
General Nailing Machine Corp.
Hurt Conveyor Co.
Jeffrey Mfg. Corp.
Joy Mfg. Corp.
Joy Mfg. Co.
Link-Belt Co.
Lippmann Eng. Works, Inc.
Portland Chain Mfg. Co.
Saginaw Prod. Corp.
Sandvik Steel, Inc.
Stephens-Adamson Mfg. Co. Stephens-Adamson Mfg. Co. Jervis B. Webb Co.

JACKS—hydraulic

Coffing Hoist Div.
L. B. Foster Co.
Globe Hoist Co.
Hein-Werner Corp.
Lewis-Shepard Prod., Inc.
Remco Mfg. Co.
Rotary Lift Co.
Rucker Co.
Templeton, Kenly & Co.
Unit Mfg. Co.
Vanguard Eng. Co.

JACKS-lift

Coffing Hoist Div.
Hamilton Caster & Mfg. Co.
Hamilton Tool Co.
Lansing Co.
Saginaw Prod. Corp.
Templeton, Kenly & Co.

JACKS—screw

Coffing Hoist Div. Hamilton Tool Co. Saginaw Prod. Corp. Templeton, Kenly & Co.

LOADERS, UNLOADERS-

portable and self-propelled
Allis-Chalmers Mfg. Co.
Arcadia Mfg. Co.
Carter-Miller Co.
Cater-Miller Co.
Cater-Miller Co.
Cater-Miller Co.
J. C. Corrigan Co., Inc.
John Deere Ind. Div.
Eimco Corp.
Fairfield Eng. Co.
Flexoveyor Mfg. Co.
"HH" Manufacturers
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Ingersoll-Kalamazoo Div.
Kolman Mfg. Co. (portable loaders only)
Lawrence Machine & Mfg. Co.
Lippmann Engineering Works
Massey-Ferguson Ind. Div.
Power-Curve Conveyor Co.
Oliver Corp.
Silent Hoist & Crane Co.
Schultz Materials Handling Corp.
Stephens-Adamson Mfg. Co.
Tractomotive Corp.
Vanguard Eng. Co. self-propelled

LOADERS, UNLOADERS-

tailgate Taligate
Daybrook Hydraulic Div.
Gar Wood Industries, Inc.
Frank G. Hough Co.
Frank G. Hough Co.
Massey-Ferguson Ind. Div.
Lange Lift Co.
Thew Shovel Co.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.
(front end) (front end)

LP-GAS EQUIPMENT

American Liquid Gas Corp. Beam Products Mfg. Co. Century Gas Equipment Ensign Carburetor Co. Parkdale Co. Worthington Corp.

MAGNETS

Bosworth Mfg. Co.
E C & M Div.
Eriez Mfg. Co.
Homer Mfg. Div.
Schield Bantam Co.
Universal Craneholst & Monorail

MARKING EQUIPMENT

Cost Reduction Equip. Co. Diagraph-Bradley Industries Inc. General Nailing Machine Corp. Ideal Stencil Machine Co. Industrial Marketing Equipment Industrial Marketing Equipme Co. (automatic) Marsh Stencil Machine Co. Multistamp Co. Multistamp Co. Remco Mfg. Co. H. C. Sweet Co. Weber Marking Systems Div.

PACKAGING MACHINERY

Bemis Brothers Bag Co.
Continental Can Co., Inc.
Derby Sealers, Inc.
General Nailing Machine Corp.
Ludlow Papers, Inc.
B. W. McIntyre & Co.
Nichols Conveyor & Eng. Co., Nichols Conveyor & Eng. Co., Inc.
Pak-Rapid, Inc.
Portland Div.
Richardson Scale Co.
Rucker Co.
H. L. Stoker Co.
Trans-Pak, Inc.
Weigh Right Automatic Scale

PACKING MATERIAL

Celotex Corp.
Fibreboard Paper Products Corp.
Kimberly-Clark Corp.
Orchard Paper Co.
Portco Corp.
Sackner Products, Inc.
Sherman Paper Products Corp.
of Calif.

PALLET LOADERS

Alvey Conveyor Manufacturing Co.
Banner Metals, Inc.
Beacon Machinery Co.
J. I. Case Co.
J. I. Case Co.
John Deere Ind. Div.
Flexoveyer Mfg. Co.
Food Machinery & Chemical
Corp.
Lamson Corp.
Magesco Magesco Paramount Mfg. Co. Jervis B. Webb Co.

PALLETS

Brummeler Steel Prod. Corp.
Buildog Pallet Co.
Cargotainer Div.
Colorado Fuel & Iron Corp.
Continental Can Co., Inc.
Cost Reduction Equip. Co.
Elizabeth Iron Works, Inc.
Fab-Weld Corp.
Hunter Woodworks
Industrial Skid & Pallet Co.
F. N. Langsenkamp Co.
Lansing Co.
Magnesium Fabricators, Inc.
McDermott & Greene
P. F. O'Donnell Co.
Petley, Inc.
Pioneer Pallet Co.
Portco Corp.
Powell Pressed Steel Co.
Rack Engineering Co. of Calif.,
Inc.
Republic Steel Corp. Inc.
Republic Steel Corp.
Specification Packaging Engr.
Co.
Springport Steel Products Co.
Stackbin Corp.
Trans-Pak, Inc.
Trojan Metal Prod.

PLATFORMS—loading

Autoquip Corp.
The Ballymore Co.
Beacon Machinery, Inc.
Globe Hoist Co.
Hamilton Tool Co.
Magline Inc. Magline, Inc. Magnesium Co. of America Magnesium Fabricators, Inc. Raymond Corp.

PULLEYS—conveyor

PULLEYS—conveyor

American Pulley Co.
A. J. Bayer Co.
Bodinson Mfg. Co.
Carter-Miller Co.
J. D. Christian Eng.
Conveyor Co.
R & J Dick Co.
Dodge Mfg. Co.
Fairfield Eng. Co.
General Nailing Machine Corp.
Griffith Equip. Co., Inc.
Hurt Conveyor Co.
Island Equip. Corp.
Joy Mfg. Co.
Link-Belt Co.
Link-Belt Co.
Link-Belt Co.
Lippmann Engineering Works
Portland Chain Mfg. Co.
Sandvik Steel, Inc.
Stephens-Adamson Mfg. Co.

PULLEYS—magnetic

Conveyor Co. Eriez Mfg. Co. Fairfield Eng. Co. Homer Mfg. Div. Hurt Conveyor Co.

PULLEYS—other

American Pulley Co. (steel split)
Dayton Rubber Co.
Durkee-Atwood Co.
Griffith Equip. Co., Inc.
Hurt Conveyor Co.

PUMPS—liquid handling

PUMPS—liquid handling
Allis-Chalmers Mfg. Co.
Aurora Pump Div.
John Bean Div.
Blackmer Pump Co.
Carver Pump Co.
Carver Pump Co.
Chain Belt Co.
Deming Co.
Fairbanks, Morse & Co.
Gardner-Denver Co.
Goulds Pumps, Inc.
Granberg Corp.
Ingersoil-Rand Co.
Byron Jackson Pumps, Inc.
Kinney Mfg. Div.
Lincoln Engineering Co. of Calif.
Marlow Pumps
Oberdorfer Foundries, Inc.
Pacific Pumps, Inc.
Roper Hydraulics, Inc.
Roper Hydraulics, Inc.
Rucker Co.
Sier-Bath Gear & Pump Co.
Tuthill Pump Co.
Viking Pump Co.
Warren Pumps, Inc.
Worthington Co.

RACKS—pallet

RACKS—pallet

Alden Equipment Div.
American Metal Products Co.
Barrett-Cravens Co.
Brummeler Steel Prod. Corp.
Burlington Fabricators, Inc.
Butler Mfg. Co.
Colson Equip. & Supply Co.
Cost Reduction Equip. Co.
Equip. Mfg., Inc.
Fab-Weld Corp.
Flexangle Corp.
Frick-Gallagher Mfg. Co.
Hartman Metal Fabricators, Inc.
Hollaender Mfg. Co.
Industrial Skid & Pallet Co.
Johnson & Flaherty Mfg., Co.
Lewis-Shepard Prod., Inc.
M-H Standard Corp.
McDermott & Greene
Mechanical Handling Systems,
Inc.
National Ind. Supply Co.
P. F. O'Donnell Co.
P. F. O'Donnell Co.
Paltier Corp.
Petley, Inc.
Pioneer Pallet Co.
Rack Engineering Co. of Calif.,
Inc.
Republic Steel Corp.
Sammons & Sons
Stackbin Corp.

Republic Steel Corp.
Sammons & Sons
Stackbin Corp.
Storage Prod. Corp.
Sturdi-Bilt Material Handling
Div.
Ed Sullivan Equip. Eng. Services
Tier-Rack Corp.
Unistrut Products Co.
West Bend Equip. Corp.

RACKS—storage

RACKS—storage

Alden Equipment Div.
American Metal Products Co.
Banner Metals, Inc.
Barrett-Cravens Co.
Borroughs Mig. Co.
Brummeler Steel Prod. Corp.
Colson Equip. & Supply Co.
Cost Reduction Equip. Co.
Equip. Mig., Inc.
Equip. Orp.
Flexangle Corp.
Flexangle Corp.
Fort Steuben Metal Prod. Co.
Frick-Gallagher Mig. Co.
Frontier Mig. Co.
Hartman Metal Fabricators, Inc.
Hollaender Mig. Co.
Johnson & Flaherty Mig. Co.
Johnson & Flaherty Mig. Co.
Lewis-Shepard Prod., Inc.
Lyon Metal Prod., Inc.
McClintock Mig. Co.
McClermotk & Greene
Mechanical Handling
Inc.
M-H Standard Corp.

McDermott & Greene
McChanical Handling Systems,
Inc.
M-H Standard Corp.
National Ind. Sup. Co.
P. F. O'Donnell Co.
Paltier, Inc.
Petley, Inc.
Pollard Bros. Mfg. Co.
Rack Engineering Co. of Calif.,
Inc.
Rapids Standard Corp.
Republic Steel Corp.
Sammons & Sons
Stackbin Corp.
Storage Prod. Corp.
Sturdi-Bilt Material Handling
Div.
Ed Sullivan Equip. Eng. Service
Unistrut Products Co.
West Bend Equipment Corp.
Worley & Co.

RACKS-other

RACKS—other

American Metal Products Co.
Banner Metals, Inc.
Barnett-Cravens Co.
(drum, die)
Brooks & Perkins, Inc.
Colson Equip. & Supply Co.
CraneVeyor Corp.
(slotted angle)
Economy Eng. Co. (drum)
Equipment Mig., Inc.
Flexangle Corp. (flexangle
universal slotted angle
systems)
Hartman Metal Fabricators, Inc.
Jarke Mig. Co. (rod, strip, coil,
wire, sheet)
Lewis-Shepard Prod., Inc.
McDermott & Greene
Mechanical Handling Systems,
Inc.
M.H Standard Corp. Mechanical Handling Systems, Inc.
M-H Standard Corp.
(live storage)
National Ind. Sup. Co.
Paltier Corp. (portable)
Rack Engineering Co. of Calif.,
Inc. Sammons & Sons
Stackbin Corp. (stacking)
Sturdi-Bilt Material Handling Div.
Ed Sullivan Equip. Eng. Services
Trans-Pak, Inc.
Unistrut Products Co.

RAMPS-loading, etc.

Autoquip Corp.
A. J. Bayer Co.
Beacon Machinery, Inc.
Brooks & Perkins, Inc.
Colby Steel & Mfg., Inc.
Elizabeth Iron Works, Inc.
Globe Hoist Co.
Hartman Metal Fabricators, Inc.
Karl A. Herman Co.
F. N. Langsenkamp Co.
Magesco Magesco
Magline, Inc.
Magnesium Co. of America
McDermott & Greene
Penco Engineering Co.
Remco Mfg. Co.
Roll Rite Corp.
Rowe Methods, Inc.

ROLLERS—conveyor

Barber-Greene Co.
A. J. Bayer Co.
Bodinson Mig. Co.
Carter-Miller Co.
Colson Equip. & Supply Co.
A. B. Farquhar Div.
Harry J. Ferguson Co.
Food Machinery & Chemical
Corp.

General Nailing Machine Corp. Hewitt-Robins, Inc. Link-Belt Co. Lippmann Eng. Works Magline, Inc. McDermott & Greene McDermott & Greene Metzgar Conveyor Co.
Roll Rite Corp.
Saginaw Prod. Corp.
Stephens-Adamson Mfg. Co.
Jervis B. Webb Co.

ROLLERS—other

Caterpillar Tractor Co. McDermott & Greene Roll Rite (pallet dolly)

SCALES—automatic

Conveyor Co.
Exact Weight Scale Co.
Exact Weight Scale Co.
General Nailing Machine Corp.
Howe Scale Co.
Noble Co.
Paramount Mfg. Co.
Richardson Scale Co.
Rucker Co.
Taller & Cooper, Inc.

SCALES-conveyor

Cleveland Tramrail Div.
Conveyor Co.
Exact Weight Scale Co.
Exact Weight Scale Co.
General Nailing Machine Corp.
Howe Scale Co.
Universal Cranehoist &
Monorail Co.

SCALES—counting

Exact Weight Scale Co. Fairbanks, Morse & Co. General Nailing Machine Corp. Howe Scale Co. Taller & Cooper, Inc. Technibilt Corp.

SCALES—monorail

American Monorail Co. Cleveland Tramrail Div. Howe Scale Co. Universal Cranehoist & Monorail

SCALES—packaging

Exact Weight Scale Co. General Nailing Machine Corp. Howe Scale Co. Richardson Scale Co. Rucker Co. Weigh Right Automatic Seale

SCALES—portable

Exact Weight Scale Co.
Fairbanks, Morse & Co.
General Nailing Machine Corp.
Howe Scale Co.
Paramount Mfg. Co.
Richardson Scale Co.
Shaw Box Crane & Hoist Div.
Technibilt Corp.

SCALES—warehouse

Fairbanks, Morse & Co. Howe Scale Co. Taller & Cooper, Inc. Technibilt Corp.

SCALES-other

Exact Weight Scale Co. (gross and net weighing machines)
Howe Scale Co.
Mefco Sales & Service Corp. (crane) Streeter-Amet Co.

SKIDS

Barrett-Cravens Co.
Brummeler Steel Prod. Corp.
Cost Reduction Equip. Co.
Hamilton Caster & Mfg. Co.
Hartman Metal Fabricators, Inc.
Jakes Foundry Co. Lansing Co.
Petley, Inc.
Pioneer Pallet Co.
Powell Pressed Steel Co.

SLINGS, belt or convas—TRUCKS, box type

Rack Eng. Co.
Republic Steel Corp.
Roll Rite Corp.
Revolvator Co.
Specification Packaging Engr.
Corp.
Trojan Metal Prod.
Trans-Pak, Inc.

SLINGS-belt or canvas

Boston Woven Hose & Rubber Co.
Buffalo Weaving & Belting Co.
Cost Reduction Equip. Co.
Downs Crane & Hoist Co.
Hewitt-Robins, Inc.
Manhattan Rubber Div.
Russell Mfg. Co.
Thermoid Div.
Voss Belting & Spec. Co.

SLINGS—chain

Campbell Chain Co. Columbus McKinnon Chain Columbus McKinnon Chain Corp.
Cost Reduction Equip. Co.
Downs Crane & Hoist Co.
Portland Chain Mfg. Co.
Shaw Box Crane & Hoist Div.
Universal Cranehoist &
Monorail Co.
Western Chain Co.

SLINGS—rope

Cost Reduction Equip. Co.
Downs Crane & Hoist Co.
Leschen Wire Rope Div.
Universal Cranehoist & Monorail Wire Rope Corp. of America

SLINGS—wire rope

Colorado Fuel and Iron Corp.
Cost Reduction Equip. Co.
Downs Crane & Hoist Co.
Macwhyte Wire Rope Co.
Pacific Wire Rope Co.
John A. Roebling's Sons Corp.
Union Wire Rope Corp.
Universal Cranehoist & Monorail Co. Upson Walton Co. Wire Rope Corp. of America

SLINGS—other

Buffalo Weaving & Belting Co. Cambridge Wire Cloth Co. (woven wire) Downs Crane & Hoist Co.

STACKERS—portable

electric

electric

American Pulley Co.
Barber-Greene Co.
Barrett-Cravens Co.
Beacon Machinery, Inc.
Carter-Miller Co.
J. C. Corrigan Co., Inc.
Cost Reduction Equip. Co.
Hamilton Tool Co.
Lee Engineering Co.
Lewis-Shepard Prod., Inc.
McDermott & Greene
Revolvator Co.
Vanguard Eng. Co.
West Bend Equipment Corp.

STACKERS-portable hand

American Pulley Co.
Arcadia Mfg. Co.
Barrett-Cravens Co.
Big Joe Mfg. Co.
Cost Reduction Equip. Co.
Hamilton Tool Co.
Hartman Metal Fabricators, Inc.,
Fortable Lift Div.
Lee Engineering Co.
Lewis-Shepard Prod., Inc.
McDermott & Greene
Revolvator Do.
Ruger Equip., Inc.
Vanguard Eng. Co.
West Bend Equip. Corp.

STITCHING AND STITCH-ING EQUIPMENT

Acme Steel Co. American Machine Works, Inc. Dave Fischbein Co. Prime Co., Inc.

STRAPPING AND STRAP-PING EQUIPMENT

Acme Steel Co.
Allegheny Steel Band Co.
A. J. Gerrard & Co.
Prime Co., Inc.
Sackner Prod., Inc.
Signode Steel Strapping Co.
Stanley Steel Strapping Div.
Trans-Pak, Inc.
U. S. Steel Supply Div.

TABLES—conveying TABLES—conveying
Aiden Equipment Div.
A. J. Bayer Co.
Beacon Machinery, Inc.
Bodinson Mfg. Co.
Brooks & Perkins, Inc.
Cost Reduction Equip. Co.
J. C. Corrigan Co., Inc.
General Nailing Machine Corp.
Griffith Equip. Co., Inc.
Hamilton Tool Co.
Island Equip. Corp.
Link-Belt Co.
Mathews Conveyer Co., West
Coast
Portland Chain Mfg. Co.
Sandvik Steel, Inc.
SPS Western Div.

TABLES—elevating

Beacon Machinery, Inc.
Cost Reduction Equip. Co.
Economy Eng. Co.
Griffith Equip. Co., Inc.
Hamilton Tool Co.
Lange Lift Co.
Link-Belt Co. Link-best Magesco
Magesco
Portland Chain Mfg. Co.
Raymond Corp.
Revolvator Co.
SPS Western Div.
West Bend Equipment Corp.

TABLES—portable

Beacon Machinery, Inc.
Brooks & Perkins, Inc.
Hamilton Tool Co.
Lange Lift Co.
McClintock Mfg. Co.
Portland Chain Mfg. Co.
Pressteel Co.
Raymond Corp.
Sherman Paper Prod. Corp. of
Calif.
SPS Western Div.
Trojan Metal Prod.

TABLES-other

Carrier Conveyor Corp. Carrier Conveyor Corp.
(vibrating)
Frontier Mfg. Co.
Hamilton Tool Co.
Pollard Bros. Mfg. Co.
Pressteel Co. (work)
Raymond Corp. (sheet feeding)
Remco Mfg. Co.
Simplicity Eng. Co. (picking coal) coal)
SPS Western Div.
(work benches)

TAGS AND LABELS

W. H. Brady Co. Weber Marking Systems Div.

TAPE-marking

W. H. Brady Co. Gummed Prod. Co. Mid-States Gummed Paper Div. Polyken Sales Div. Shuford Mills, Inc. Weber Marking Systems Div.

TAPE-packaging

Bemis Bros. Bag Co.
W. H. Brady Co.
A. J. Gerrard & Co.
Gummed Prod. Co.
Ludlow Papers, Inc.
Mid-States Gummed Paper Div.
Nashua Corp.
Polyken Sales Div.
Shuford Mills, Inc.

TIRES-industrial truck and

trailer Gar-Bro Mfg. Co. Gates Rubber Co. B. F. Goodrich Tire Co. Laher Spring & Tire Corp.

Magesco Mitchell Industrial Tire Co., Inc. Monarch Rubber Co. Roll Rite Corp. Saginaw Prod. Corp. U. S. Rubber Co.

TONGS

Cady Metal Fabricating Co. Downs Crane & Hoist Co. Heppenstall Co. Magline, Inc. Merrill Brothers

TRACTORS-diesel

J. I. Case Co.
Caterpillar Tractor Co.
John Deere Ind. Div.
Eimco Corp.
Frank G. Hough Co.
Oliver Corp.
Towmotor Corp.
White Motor Co.

TRACTORS-electric

warehouse American Pulley Co. Barrett-Cravens Co. Barrett-Cravens Co.
Eimco Corp.
Elwell-Parker Electric Co.
Kalamazoo Mfg. Co.
Lift Trucks, Inc.
Mercury Mfg. Co.
Moto-Truc Co.
Revolvator Co.
Revolvator Co.
Rocky Mountain Steel
Taylor-Dunn Mfg. Co.
Vanguard Eng. Co.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

TRACTORS—gasoline

warehouse Warehouse
Erickson Power Lift Trucks, Inc.
John Deere, Ind., Div.
"HH" Manufacturers
Hensel Green & Co.
Frank G. Hough Co.
Hyster Co.
Kalamazoo Mfg. Co.
Laher Spring & Tire Corp.
Mercury Mfg. Co.
Oliver Corp.
Towmotor Corp.
Vanguard Eng. Co.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

TRACTORS-monorail

American Monorail Co. Cleveland Tramrail Div. Crane Hoist Eng. Corp. Schultz Material Handling Corp. Jervis B. Webb Co.

TRAILERS-factory and

warehouse warehouse
Colson Equipment & Supply Co.
Cost Reduction Equipment Co.
Electric Marketeer Mfg. Co.
Equipment Mfg., Inc.
Fab-Weld Corp.
Fairbanks Co.
French & Hecht Div.
Griffith Equip. Co., Inc.
"HH" Manufacturers
Hamilton Caster & Mfg. Co.
Hartman Metal Fabricators, Inc.
Jakes Foundry Co.
Lansing Co.

Mercury Mfg. Co.
Nutting Truck & Caster Co.
Rack Eng. Co.
Roll Rite Corp.
Saginaw Prod. Corp.
Saginaw Prod. Corp.
Saginaw Prod. Corp.
Taylor-Dunn Mfg. Co.
Trojan Metal Prod.
Vanguard Eng. Co.
West Bend Equipment Corp.
Wonderlift Trailers

TRAILERS-motor truck and

tractor John Deere Ind. Div. F.A.B. Mig. Co. Selma Trailer & Mig. Co. Vanguard Eng. Co. Wentworth & Irwin, Inc. Wonderlift Trailers

TROLLEYS

Alden Equipment Div.
All-State Eng. Co., Inc.
American Monorail Co.
Chisholm-Moore Hoist Div.
Cleveand Tramrail Div.
Crane Hoist Engineering Corp.
CraneVeyor Corp.
Cyclops Iron Works
Duff-Norton Co.
Ederer Eng. Co.
Forker Corp.
Harrington Co.
Link-Belt Co.
Mathews Conveyer Co., West
Coast Coast Stanley E. Morris Co. Richards-Wilcox Mfg. Co. Schultz Materials Handling Corp. Saginaw Prod. Corp. Spanmaster Crane Div. Universal Cranehoist & Monoraii Coast Co.
Wright Hoist Div.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.
(hand, motorized)

TRUCKS-bag, barrel, drum

Arcadia Mfg. Co.
American Pulley Co.
Baker Industrial Trucks
John Bean Div. (drum only)
Brooks & Perkins, Inc.
Carter-Miller Co.
Colson Equip. & Supply Co.
Cost Reduction Equip. Co.
Dico Co.
Elwell-Parker Electric Co.
Fairbanks Co. Fairbanks Co.
"HH" Mfg.
Hamilton Caster & Mfg. Co.
Hartman Metal Fabricators, Inc.
Portable Lift Div. Portable Lift Div.
Hyster Co.
Jakes Foundry Co.
Kalamazoo Mfg. Co.
Kwik-Mix Co.
Laher Spring & Tire Corp.
Lansing Co.
Lewis-Shepard Prod., Inc.
Little Giant Prod., Inc.
Magline, Inc.
Magnesium Co. of America
McDermott & Greene
Nutting Truck & Caster Co.
Rack Engineering Co. of Calif., Inc.
Inc. Inc.
Roll Rite Corp.
Towmotor Corp.
West Bend Equipment Corp.

TRUCKS-box type

Brooks & Perkins, Inc.
Carter-Miller Co.
Colson Equip. & Supply Co.
Cost Reduction Equip. Co.
Dico Co.
Federal Fibre Corp.
Hamilton Caster & Mfg. Co.
Jakes Foundry Co.
Kwik-Mix Co.
Lewis-Shepard Prod., Inc.
McDermott & Greene
Magline, Inc.
National Vulcanized Fibre Co.
Nutting Truck & Caster Co.
Pollard Bros. Mfg. Co.
Rack Engineering Co. of Calif.
Inc.
Roll Rite Corp. Inc.
Roll Rite Corp.
Spaulding Fibre Co., Inc.
Towomotor Corp.
West Bend Equipment Corp.

TRUCKS—die handling

TRUCKS—die handling
American Pulley Co.
Arcadia Mfg. Co.
Arcadia Mfg. Co.
Automatic Transporation Co.
Baker Industrial Trucks
Cost Reduction Equip. Co.
Economy Engineering Co.
Elwell-Parker Electric Co.
Erickson Power Lift Trucks, Inc.
Fab-Weld Corp.
Hamilton Caster & Mfg. Co.
Hamilton Tool Co.
Harman Metal Fabricators, Inc.,
Portable Lift Div.
Jakes Foundry Co.
Lee Eng. Co.
Lewis-Shepard Prod., Inc.
Stanley E. Morris Co.
Nutting Truck & Caster Co.
Pollard Bros. Mfg. Co.
Raymond Corp.
Saginaw Prod. Corp.
Towmotor Corp.
Towmotor Corp.
Towmotor Corp.
Towmotor Corp.
Yanguard Eng. Co.
West Bend Equipment Corp.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

TRUCKS-dolly

American Pulley Co.
Banner Metals, Inc.
Brooks & Perkins, Inc.
Colson Equip. & Supply Co.
Cost Reduction Equip. Co.
Engineering Prod. Co.
Fairbanks Co.
Hamilton Caster & Mig. Co.
Hamilton Tool Co.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Industrial Skid & Pallet Co.
Jarvis & Jarvis, Inc.
Lansing Co. Jarvis & Jarvis, Inc.
Lansing Co.
Magline, Inc.
Magnesium Co. of America
McClintock Mfg. Co.
McDermott & Greene
Micron, Inc.
Milwaukee Truck Co.
Stackbin Corp.
Stanley E. Morris Co.
Naipak Corp.
National Vulcanized Fibre Co.
Nutting Truck & Caster Co.
Rack Engineering Co. of Calif.,
Inc. Inc.
Roll Rite Corp.
Vanguard Eng. Co.
West Bend Equipment Corp.

TRUCKS-elevating or

lifting
American Pulley Co.
Arcadia Mfg. Co.
Arcadia Mfg. Co.
Automatic Transportation Co.
Baker Industrial Trucks
Barrett-Cravens Co.
Calva Equip. Co.
Calva Equip. Co.
Colson Equip. & Supply Co.
Cost Reduction Equip. Co.
Erickson Power Lift Trucks, Inc.
Elevell-Parker Electric Co.
Fairbanks Co.
Hamilton Tool Co.
Hartman Metal Fabricators, Inc.,
Fortable Lift Div.
Kwik-Mix Co.
Lee Eng. Co.
Lewis-Shepard Prod., Inc.
McDermott & Greene
Mercury Mfg. Co.
Stanley E. Morris Co.
Moto-Truc Co.
Raymond Corp.
Remco Mfg. Co.
Raymond Corp.
Remco Mfg. Co.
Revolvator Co.
Roll Rite Corp.
Towmotor Corp.
Unrden, Inc.
Vanguard Eng. Co.
West Bend Equipment Corp.
Yale & Towne Mfg. Co.
Yale Materials Handling Div. lifting

TRUCKS-factory and

warehouse American Pulley Co. Arcadia Mfg. Co. Automatic Transportation Co.

Baker Industrial Trucks
Barrett-Cravens Co.
Brooks & Perkins, Inc.
Clark Equip. Co.
Colson Equip. & Supply Co.
Cost Reduction Equip. Co.
Economy Eng. Co.
Elwell-Parker Electric Co.
Fab-Weld Corp.
Fairbanks Co.
Fab-Weld Corp.
Fairbanks Co.
Hamilton Caster & Mfg. Co.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Hyster Co. Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Hyster Co.
Industrial Skid & Pallet Co.
Jakes Foundry Co.
Kwik-Mix Co.
Lee Eng. Co.
Lee Eng. Co.
Lewis-Shepard Prod., Inc.
Magline, Inc.
McDermott & Greene
B. W. McIntyre & Co.
Mercury Mfg. Co.
Milwaukee Truck Co.
Stanley E. Morris Co.
Moto-Truc Co.
National Vulcanized Fibre Co.
Nutting Truck & Caster Co.
Pollard Bros. Mfg. Co.
Prime Mover Co.
Rack Eng. Co.
Rol-Away Truck
Roll Rite Corp.
Saginaw Prod. Corp.
Technibilit Corp.
Technibilit Corp.
Towmotor Corp.
Uhrden, Inc.
Vanguard Eng. Co.
West Bend Equipment Corp.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

TRUCKS-fork, diesel

Allis-Chalmers Mfg. Co.
Baker Industrial Trucks
Clark Equipment Co.
Cost Reduction Equip. Co.
Hyster Co.
Silent Hoist & Crane Co.
Swing-Shift Mfg. Co.
Towmotor Corp.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

TRUCKS-fork, electric

American Pulley Co.
American Pulley Co.
Automatic Transporation Co.
Baker Industrial Trucks
Barrett-Cravens Co.
Big Joe Mfg. Co.
Clark Equipment Co.
Colby Steel & Mfg. Co.
Economy Eng. Co.
Elweil-Parker Electric Co.
Engineering Prod. Co.
Lewis-Shepard Prod., Inc.
Lift Trucks, Inc.
Mercury Mfg. Co.
Maymond Corp.
Revolvator Co. Revolvator Co. Swing-Shift Mfg. Co. Uhrden, Inc. Yale & Towne Mfg. Co. Yale Materials Handling Div.

TRUCKS—fork, gasoline

Allis-Chalmers Mfg. Co.
Automatic Transporation Co.
Baker Industrial Trucks
Champ Equipment Corp.
Clark Equipment Cop.
Clark Equipment Co.
Erickson Power Lift Trucks, Inc.
"HH" Manufacturers
Hyster Co. "HH" Manufacturers
Hyster Co.
Kwik-Mix Co.
Knickerbocker Co.
Mercury Mfg. Co.
Silent Hoist & Crane Co.
Swing-Shift Mfg. Co.
Townotor Corp.
Transitier Truck Co.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

TRUCKS-hand

American Pulley Co.
Arcadia Mfg. Co.
Automatic Transportation Co.
Banner Metals, Inc.
Barrett-Cravens Co.
Brooks & Perkins, Inc.
Brummeler Steel Prod. Corp.
Carter-Miller Co.

Colson Equipment & Supply Co. Cost Reduction Equip. Co. Dico Co. Equipto Div. Economy Eng. Co. Engineering Prod. Co. Fab-Weld Corp. Fairbanks Co. Food Machinery & Chemical Fairbanks Co.
Food Machinery & Chemical
Corp.
"HH" Mfg.
Hamilton Caster & Mfg. Co.
Jakes Foundry Co.
Jarvis & Jarvis, Inc.
Lansing Co.
McClintock Mfg. Co.
Magnesium Co. of America
McDermott & Greene
Magline, Inc.
Milwaukee Truck Co.
Nalpak Corp.
National Vulcanized Fibre Co.
Nutting Truck & Caster Co.
Pollard Bros. Mfg. Co.
Rack Engineering Co. of Calif.,
Inc.
Roi-Away Truck Mfg. Co., Inc.
Roil Rite Corp.
Stackbin Corp.
Technibilt Corp.
Unrden, Inc.
West Bend Equipment Corp.
Yale & Towne Mfg. Co.
Yale Materials Handling Div. TRUCKS-lift, hand-electric

TRUCKS-hand, motorized

Automatic Transporation Co. Automatic Transporation Co.
Barrett-Cravens Co.
Clark Equipment Co.
Cost Reduction Equip. Co.
Economy Eng. Co.
Kwilk-Mix Co.
Lewis-Shepard Prod., Inc.
Lift Trucks, Inc.
Moto-Truc Co.
Raymond Corp.
Revolvator Co.
Townotor Corp.
Vanguard Eng. Co.
Western Gear Corp.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

(electric, gas-electric,

TRUCKS—industrial

gasoline)
American Pulley Co.
Automatic Transporation Co.
Baker Industrial Trucks
Barrett-Cravens Co.
Clark Equipment Co.
Colby Steel & Mig., Inc.
Cost Reduction Equip. Co.
Cushman Motors
Economy Eng. Co.
Electric Marketeer Mig. Co.
Electric Marketeer Mig. Co.
Elwell-Parker Electric Co.
Engineering Prod. Co.
Kalamazoo Mig. Co.
Kalamazoo Mig. Co.
Kwik-Mix Co.
Lamson Mobilitt Corp.
Lewis-Shepard Prod., Inc.
Lift Truck, Inc.
Mercury Mig. Co.
Moto-Truc Co.
Prime Mover Co.
Raymond Corp.
Revolvator Co.
Silent Hoist & Crane Co. gasoline) Raymond Carp.
Revolvator Co.
Silent Hoist & Crane Co.
Taylor-Dunn Mfg. Co.
Vanguard Eng. Co.
Vale & Towne Mfg. Co.
Yale Materials Handling Div.

TRUCKS-lift, gasoline Allis-Chalmers Mfg. Co.

Automatic Transporation Co. **Baker Industrial Trucks** Clark Equip. Co. Cost Reduction Equip. Co. Elwell-Parker Electric Co. "HH" Manufacturers Hyster Co. Kwik-Mix Co. Silent Hoist & Crane Co. Towmotor Corp. Yale & Towne Mfg. Co. Yale Materials Handling Div.

TRUCKS-lift, hand American Pulley Co.

Arcadia Mfg. Co.
Automatic Transporation Co.
Barrett-Cravens Co.
Colson Equip. & Supply Co.
Cost Reduction Equip. Co.
Economy Eng. Co.
Economy Eng. Co.
Grand Specialties Co.
Hamilton Caster & Mfg. Co.
Harmiton Tool Co.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Lange Lift Co.
Lewis-Shepard Prod., Inc.
Lift Trucks, Inc.
McDermott & Greene
Rack Engineering Co. of Calif.,
Inc. Inc. Inc.
Raymond Corp.
Revolvator Co.
Roll Rite Corp.
Stratton Equip. Co.
Thern Machine Co.
Unit Mig. Co.
West Bend Equipment Corp.
Yale & Towne Mig. Co.
Yale Materials Handling Div.

TRUCKS—lift, hand-electric
Automatic Transporation Co.
Big Joe Mfg. Co.
Clark Equip. Co.
Clark Equip. Co.
Cost Reduction Equip. Co.
Economy Eng. Co.
Grand Specialties Co.
Hamilton Tool Co.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Lange Lift Co.
Lewis-Shepard Prod., Inc.
Lift Trucks, Inc.
McDermott & Greene
Stanley E. Morris Co.
Moto-Truc Co.
Raymond Corp.
Revolvator Co.
Stratton Equip. Co.
Towmotor Corp.
Unit Mig. Co.
Yale & Towne Mig. Co.
Yale Materials Handling Div.

TRUCKS-lift, hand-

mechanical or jack-type
Automatic Transportation Co.
Barrett-Cravens Co.
Big Joe Mfg. Co.
Colson Equip. & Supply Co.
Cost Reduction Equip. Co.
Economy Eng. Co.
Hamilton Tool Co.
Jakes Foundry Co.
Lange Lift Co.
Lewis-Shepard Prod., Inc.,
Lift Trucks, Inc.
McDermott & Greene
Rack Engineering Co. of Calif.,
Inc.
Revolvator Co.
Roll Rite Corp.
Stratton Equip. Co.
West Bend Equipment Co. mechanical or jack-type

TRUCKS-lift, hydraulic

American Pulley Co.
Automatic Transportation Co.
Baker Industrial Trucks
Barrett-Cravens Co.
Big Joe Mig. Co.
Colson Equip. & Supply Co.
Cost Reduction Equip. Co.
Elwell-Parker Electric Co.
Engineering Prod. Co.
Erickson Power Lift Trucks, Inc.
Gerlinger Carrier Co.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Knickerbocker Co.
Kwik-Mix Co.
Lange Lift Co.
Lectro-Lift
Lee Engineering Co.
Lewis-Shepard Prod., Inc.
Lift Trucks, Inc.
Mercury Mig. Co.
McDermott & Greene
Raymond Corp. American Pulley Co. Raymond Corp Remco Mfg. Co. Revolvator Co. Roll Rite Corp. Stratton Equip. Co. Thern Machine Co. Uhrden, Inc. Unit Mfg. Co. West Bend Equipment Corp.

TRUCKS, lift, power driven — WIRE ROPE

TRUCKS-lift, power driven

TRUCKS—lift, power driven
Allis-Chalmers Mfg. Co.
American Pulley Co.
Automatic Transportation Co.
Baker Industrial Trucks
Barrett-Cravens Co.
Cost Reduction Equip. Co.
Ewell-Parker Electric Co.
Gerlinger Carrier Co.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Kwik-Mix Co.
Lewis-Shepard Prod., Inc.
Lift Trucks, Inc.
Raymond Corp.
Revolvator Co.
Stratton Equip. Co.
Uhrden, Inc.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

TRUCKS-packing house

American Pulley Co.
Automatic Transportation Co.
Barrett-Cravens Co.
Elwell-Parker Electric Co.
Food Machinery & Chemical
Corp.
Hamilton Caster & Mfg. Co.
Jakes Foundry Co.
Kwik-Mix Co.
Lawie-Shapper Prod. Inc. Kwik-Mix Co. Lewis-Shepard Prod., Inc. McDermott & Greene Moto-Truc Co. Rack Eng. Co. Roll Rite Corp.

TRUCKS-pallet

TRUCKS—pallet

American Pulley Co.
Arcadia Mfg. Co.
Arcadia Mfg. Co.
Automatic Transportation Co.
Baker Industrial Trucks
Barrett-Cravens Co.
Big Joe Mfg. Co.
Brummeler Steel Prod. Corp.
Clark Equip. Co.
Colson Equip. & Supply Co.
Cost Reduction Equip. Co.
Engineering Prod. Co.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Hyster Co.
Knickerbocker Co.
Kwik-Mix Co.
Lee Eng. Co.
Lewis-Shepard Prod., Inc.
Lift Trucks, Inc.,
McDermott & Greene
Moto-Truc Co.
Rack Engineering Co. of Calif.,
Inc.
Raymond Corp.
Roll Rite Corp. Ine.
Raymond Corp.
Roll Rite Corp.
Towmotor Corp.
West Bend Equip. Corp.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

TRUCKS-paper roll

TRUCKS—paper roll
American Pulley Co.
Automatic Transportation Co.
Barrett-Cravens Co.
Big Joe Mig. Co.
Clark Equip. Co.
Colson Equip. & Supply Co.
Cost Reduction Equip. Co.
Elwell-Parker Electric Co.
Fairbanks Co.
Hamilton Caster & Mig. Co.
Harmilton Caster & Mig. Co.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Hyster Co.
Jakes Foundry Co.
Lewis-Shepard Prod., Inc.
McDermott & Greene
Mercury Mig. Co.
Moto-Truc Co.
Nutting Truck & Caster Co.
Rack Eng. Co.
Roll Rife Corp.
Yale & Towne Mig. Co.
Yale Materials Handling Div.

TRUCKS-sheet handling

American Pulley Co.
Automatic Transporation Co.
Baker Industrial Trucks
Barrett-Cravens Co.
Big Joe Mfg. Co.

Clark Equip. Co.
Cost Reduction Equip. Co.
Elwell-Parker Electric Co.
Erickson Power Lift Trucks, Inc.
Fairbanks Co.
Hamilton Caster & Mfg. Co.
Harman Metal Fabricators, Inc.,
Portable Lift Div.
Jakes Foundry Co.
Lange Lift Co.
Lewis-Shepard Prod., Inc.
McDermott & Greene
Stanley E. Morris Co.
Nutting Truck & Caster Co.
Rack Engineering Co. of Calif.,
Inc. Rol-Away Truck Mfg. Co., Inc. Roll Rite Corp. Towmotor Corp. West Bend Equipment Corp.

TRUCKS-skid handling

TRUCKS—skid handling
American Pulley Co.
Automatic Transportation Co.
Baker Industrial Trucks
Barrett-Cravens Co.
Big Joe Mfg. Co.
Cost Reduction Equip. Co.
Economy Eng. Co.
Elwell-Parker Electric Co.
Erickson Power Lift Trucks, Inc.
Hamilton Caster & Mfg. Co.
Hamilton Caster & Mfg. Co.
Hamilton Tool Co.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Industrial Skid & Pallet Co.
Jakes Foundry Co.
Knickerbocker Co.
Kwik-Mix Co.
Lange Lift Co.
Lansing Co.
Lewis-Shepard Prod., Inc.
Lift Trucks, Inc. Lewis-Shepard Prod., Inc.
Lift Trucks, Inc.
McDermott & Greene
Mercury Mfg. Co.
Moto-Truc Co.
Notio-Truc & Caster Co.
Raymond Corp.
Roll Rite Corp.
Towmotor Corp.
Uhrden, Inc.
West Bend Equipment Corp.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

TRUCKS-straddle

American Pulley Co.
Automatic Transportation Co.
Barrett-Cravens Co.
Big Joe Mig. Co.
Clark Equipment Co.
Cost Reduction Equip. Co.
Economy Eng. Co.
Erickson Power Lift Trucks, Inc.
Gerlinger Carrier Co.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Hyster Co. Portable Lift Div.
Hyster Co.
Lange Lift Co.
Lee Engineering Co.
Lewis-Shepard Prod., Inc.
Lift Trucks, Inc.
Moto-Truc Co.
Raymond Corp.
Yale & Towne Mfg. Co.
Yale Materials Handling Div.

TRUCKS-tiering, electric

TRUCKS—tiering, electric
American Pulley Co.
Automatic Transportation Co.
Baker Industrial Trucks
Barrett-Cravens Co.
Big Joe Mfg. Co.
Clark Equip. Co.
Clark Equip. Co.
Economy Engineering Co.
Elewell-Parker Electric Co.
Hartman Metal Fabricators, Inc.,
Portable Lift Div.
Lewis-Shepard Prod., Inc.
Lift Trucks, Inc.,
Mercury Mfg. Co.
Moto-Truc Co.
Raymond Corp.
Revolvator Co.
Yale & Towne Mfg. Co.
Yale & Towne Mfg. Co.

TRUCKS-other

Arcadia Mfg. Co. (custom)
Barrett-Cravens Co. (electronic, remote control)
Big Joe Mfg. Co. (lift-foot operated)

Elwell-Parker Electric Co. Hamilton Caster & Mfg. Co. Jarke Mfg. Co. (specials to Jarke Mig. Co. (specials to specs.) Lewis-Shepard Prod., Inc. Paltier Corp. (aluminum) Raymond Corp. (4-directional) Taylor-Dunn Mig. Co. (personnel) Vanguard Eng. Co. Viking Forge & Steel Co. White Motor Co.

VIBRATORS

Carrier Conveyor Corp.
Cleveland Vibrator Co.
B. W. Elliott Mrg. Co., Inc.
Eriez Mrg. Co.
Fairfield Eng. Co.
Gardner-Denver Co.
General Nailing Machine Corp.
Hewitt-Robins, Inc.
Kolman Mrg. Co.
Link-Belt Co.
Remco Mrg. Co.
Syntron Co.

WHEELBARROWS-

industrial Dico Co. Gar-Bro Mfg. Co. Jackson Mfg. Co. Lansing Co. Prime Mover Co. (powered)

WHEELS—conveyor

American Monorail Co.
A. J. Bayer Co.
Carter-Miller Co.
Colson Equipment & Supply Corp.
Harry J. Ferguson Co.
Food Machinery & Chemical Corp. General Nailing Machine Corp. General Nailing Machine Corp Link-Belt Co. McDermott & Greene Mechanical Handling Systems, Inc. Metzgar Conveyor Co. Portland Chain Mig. Co. Roll Rite Corp. Saginaw Prod. Corp. Union Chain & Mig. Co. Jervis B. Webb Co.

WHEELS-general industrial

WHEELS—general industrial
Aerol Co.
Albion Industries
American Pulley Co.
Colson Equipment & Supply Co.
Dico Co.
Divine Brothers Co.
Electric Wheel Co.
Faultless Caster Corp.
French & Hecht Div.
Gar-Bro Mfg. Co.
Goddeyne Wheel Prod.
Hamilton Caster & Mfg. Co.
Jacks Foundry Co.
Lewis-Shepard Prod., Inc.
Magesco
McDermott & Greene
R & K Industrial Products Co.
Roll Rite Corp.
Saginaw Prod. Corp.

WHEELS-hand truck

Aerol Co.
Albion Industries, Inc.
American Pulley Co.
Colson Equipment & Supply Co.
Dico Co.
Divine Brothers Co. Divine Brothers Co.
Fairbanks Co.
Fairbanks Co.
Fairbanks Co.
French & Hecht Div.
Frood Machinery & Chemical
Corp.
Gar-Bro Mfg. Co.
Goddeyne Wheel Prod.
Hamilton Caster & Mfg. Co.
Jakes Foundry Co.
Lansing Co.
Lewis-Shepard Prod., Inc.
Magesco
Magnesium Co. of America
McDermott & Greene
Nutting Truck & Caster Co.
R & K Industrial Products Co.
Rapids Standard Corp.
Roll Rite Corp.

Saginaw Prod. Corp. Technibilt Corp. West Bend Equip. Corp.

WHEELS-rubber tired

WHEELS—rubber tired

Aerol Co.
Albion Industries
American Monorail Co.
American Pulley Co.
Colson Equipment & Supply Co.
Divine Brothers Co.
Electric Wheel Co.
Fairbanks Co.
Faultless Caster Corp.
Food Machinery & Chemical
Corp.
French & Hecht Div.
Gar-Bro Mfg. Co.
Goddeyne Wheel Prod.
Hamilton Caster & Mfg. Co.
Jackson Mfg. Co.
Jackson Mfg. Co.
Jackson Mfg. Co.
Jackson Mfg. Co.
Jacks Foundry Co.
Jarvis & Jarvis, Inc.
Lansing Co.
Lewis-Shepard Prod., Inc.
Magesco
McDermott & Greene
Nutting Truck & Caster Co.
Roll Rite Corp.
Saginaw Prod. Corp.
Technibilt Corp.
West Bend Equip. Corp.

WHEELS-tractor

Albion Industries, Inc. Colson Equip. & Supply Co. Electric Wheel Co. French & Hecht Div. Gar-Bro Mfg. Co. Lewis-Shepard Prod., Inc.

WHEELS-trailer

Albion Industries, Inc. Colson Equipment & Supply Co. Albion Industries, Inc.
Colson Equipment & Supply
Dico Co.
Divine Brothers Co.
Faultiess Caster Corp.
French & Hecht Div.
Gar-Bro Mfg. Co.
Hamilton Caster & Mfg. Co.
Jakes Foundry Co.
Lewis-Shepard Prod., Inc.
Magesco
Nutting Truck & Caster Co.
Roll Rite Corp.
Saginaw Prod. Corp.

WINCHES AND WINDLASSES

American Engineering Co.
Berger Eng. Co. (winches only)
J. D. Christian Engineers
Clyde Iron Works
Cost Reduction Equip. Co.
Crane Hoist Engineering Corp.
Downs Crane & Hoist Co.
Engineering Prod. Co.
Gar Wood Industries, Inc.
Little Giant Products, Inc.
Sauerman Bros., Inc.
Shepard Niles Crane & Hoist
Corp. Shepard Niles Crane & Hoist Corp. Silent Hoist &Crane Co. Skagit Steel & Iron Works Stephens-Adamson Mfg. Co. Thern Machine Co. Tulsa Winch Div. Universal Cranehoist & Monorail Yale & Towne Mfg. Co.
Yale Materials Handling Div.

WIRE ROPE AND WIRE ROPE FITTINGS

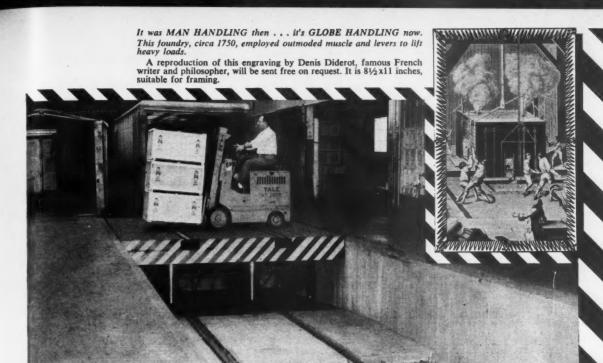
Wire ROPE FITTINGS

Bethlehem Pacific Coast Steel Corp.

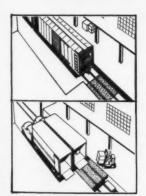
Broderick & Bascom Rope Co. Colorado Fuel and Iron Corp. Crosby-Laughlin Div.

E. H. Edwards Co. Industrial Wire Products Corp. Leschen Wire Rope Div. Macwhyte Wire Rope Co. Pacific Wire Rope Co. Pacific Wire Rope Co. John A. Roebling's Sons Corp. Sauerman Bros., Inc. Union Wire Rope Corp. Upson Walton Co.

Wire Rope Corp. of America



ONE GLOBE BRIDGE LIFT SOLVES TWO PROBLEMS



OiLIFT doubles as cross-over and loading dock

A New England manufacturing plant uses a single Globe OiLIFT to bridge a sunken railroad track and serve as a truck loading platform.

The elevated 10 by 14 foot platform, dual cylinder powered and having a capacity of 20,000 lbs., provides a short-cut route for plant traffic. Minutes of travel time saved many times a day for both men and equipment add up to impressive economies. Lowered 4½ feet, the platform's inset track sections index

with the spur track to permit free movement of rail cars.

When motor trucks back up to loading area, the Globe OiLIFT in raised position adds working space to the dock area. Two trucks are now loaded/unloaded where previously only one could be accommodated.

Wherever there is a material handling bottleneck, involving heavy (1,000 to 50,000 lb.) loads, Globe OiLIFTS can eliminate it. Platforms, power cylinders, etc., are tailored to your requirements; assembled from production line components.

CLOSE BACIEIC HOIST COMPANY

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Detailed information on Globe OiLIFTS for	
Free copy of "Case Studies in Modern Lifting"	
NAME	
POSITION	
COMPANY	

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See listing in Directory Section

WI.1001P.6

HELPFUL LITERATURE for the West's plant operating executives

FOR YOUR FREE COPIES, circle appropriate key numbers on postcard, p.130

All about curve crown welded all steel pulley

An eight-page bulletin introduces a welded steel pulley with curve crown rim designed for maximum belt training effect and minimum belt wear. The squeezelock hub is another special feature of this pulley presented in the bulletin which also gives comprehensive technical and engineering data, specs, diagrams and illustrations. Stephens - Adamson Mfg. Co. . . . for your copy, circle No. 300

High-velocity electronic air cleaner described

A line of high-velocity Electro-Cell electronic air cleaners is the subject of this 16-page booklet which explains the principle of operation, describes collector cell construction and details the basic design features. The new dual-voltage fail-safe power pack is described and three arrangements of maintenance equipment discussed. The booklet also gives information on specifications, shipping weights, capacities and dimensions. American Air Filter Co., Inc. . . for your copy, circle No. 301

Details on Load Lugger material handling system

The Load Lugger system of material handling is the subject of this 12-page publication filled with pictures and facts about this versatile method. In-action pictures show the many applications this simplified system has. Design features, accessories, special units and containers for unusual needs, and selection data are included in the booklet. Load Lugger, Ingersoll Kalamazoo Div., Borg-Warner Corp.

. . . for your copy, circle No. 302

15-page brochure gives wire rope data, tables

This loose-leaf booklet is devoted entirely to wire rope data and tables accompanied by cross-section views of each other. You'll find here over 40 different kinds of wire rope with diameters, weight and breaking strength.

Wire Rope Corp. of America.

... for your copy, circle No. 303

Facts, photos on oil-free heavy duty compressors

This 12-page bulletin offers information on WGO-9 Oil-Free Compressors and contains pertinent data on 14 sizes of the heavy duty industrial compressors ranging from 95.6 to 939 C.F.M. Included in the booklet are part-designated section drawings, installation photos and a special section on the "T-Block" design compression ring. Joy Manufacturing Co.

. . . for your copy, circle No. 304

How electric furnace brazing saves time, costs

Specific examples of how electric furnace brazing speeds production, cuts costs and saves scarce metals are featured in this eight-page publication filled with pictures and drawings. A two-page spread takes you through the Superweld plant, and another page shows how the efficient plant layout speeds service and deliveries. There's even a map to show you the best ways to get there. Superweld Corp.

How to update your plant

with motorized head pulleys

The advantages in the fields of space saving, weight and compactness for this new head pulley are spotlighted in a four-page bulletin, which shows the unit in several different applications. Specifications for the unit, available in standard sizes 1 to 125 hp. and larger sizes up to 250 and on, will help you select the right pulley for your job. Western Conveyor Co. . . . for your copy, circle No. 306

1959 guide to silicones briefs all available forms

Silicones are semi-inorganic materials, more or less in a class by themselves, and as a family they are extremely versatile. This new 16-page guide tells you about uses for fluids, lubricants, resins, adhesives and dielectrics, as well as specialty products and a special silicone rubber called silastic. The application pictures will give you ideas for uses that you'd never think of. Dow Corning Corp.

. . . for your copy, circle No. 307

What P-R Plus means in marine reduction gears

What the P-R features mean in this line of herringbone marine reduction gears is told in a fourpage brochure that contains both pictures of the various types and a cutaway to emphasize its design details. The P-R stands for the precision and ruggedness of these gears, which the booklet describes fully. General information on horsepower, ratios, reverse-reduction gears and compounds, etc., is included. Lufkin Foundry & Machine Co.

. . . for your copy, circle No. 308

Story of the Sky Climber, new scaffolding device

You can read the story of the Sky Climber in a new bulletin that reports on this versatile new type of scaffolding device. You'll learn how it climbs the cable rather than spooling it on a drum so that there's no limit to its height of job. Safety approved by state, municipal and corporation safety engineers, it's available in manual, air - powered and electrical - powered units for adaptation to various application. Western Gear Corp. . . . for your copy, circle No. 309

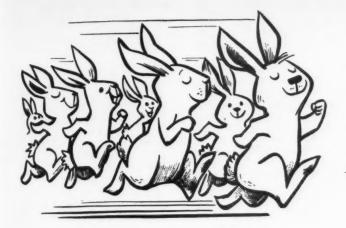
Pneumatic impact machines that stamp, rivet and mark

These pneumatic impact machines, designed for staking, swaging and impression marking as well as stamping and riveting, operate on the principle of a single-shot air hammer, using constant air pressure and variable hammer stroke. Many different models are pictured and described in this 18-page leaflet. Heidrich-Nourse Co.

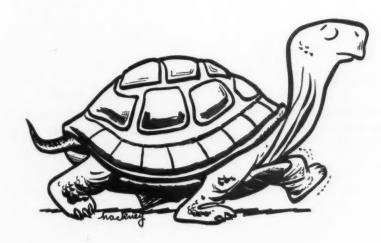
. . . for your copy, circle No. 310

List and interchangeable guide to variable speed belts

Here is an alphabetical listing, by make and model, of Browning's variable speed belts. Complete and covering six pages, it is followed by an interchange guide showing which Browning belts can be interchanged with what other makes of belts. A conversion table, numerical listing and price listings complete the 12-page book. Browning Mfg. Co.



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OR ONE ONCE IN A WHILE?

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GARBAGE TRUCKS

New-design garbage truck is a product of Washington's specialized services. Money-saving unit is lower in weight and height, has compaction ram inside a watertight tank, ejector-type unloading.



Featured above is one of many specialized items produced to specifications for shipyards, plywood, board and pulp mills, construction and logging firms, manufacturers of machinery and aircraft, atomic energy projects and other world-wide industries.

If you have a problem relating to the engineering or production of any item of large scale equipment, machine or component part, one-of-akind or in quantity, we have the diversified facilities and experience of more than seventy-five years to produce it for you at least possible cost.

The self-contained Washington facility provides engineering, iron and steel casting, heat treating, machining and fabricating. Let us quote from your specifications and send brochures detailing our services and facilities. Write Washington Iron Works, 1500 Sixth Ave. South, Seattle 4, Wash.



. . for more details, circle No. 55
See listing in Directory Section

Data on a pump that has no "type" limitations

Details about the only pump without "type" limitations — one that will pump almost anything that will flow through a pipe, — are presented in this eight-page booklet about the Moyno progressing-cavity pump. Facts on its design, development, comparison with other pump types, principles of operation, performance, capacities, speeds, etc., are included, along with photographs, cutaways and dimension tables. Manufactured by Robbins & Meyers, Inc., it is available through Fernholtz Machinery Co.

... for your copy, circle No. 312

Four bulletins to help you in coating steel surfaces

Just off the press are four new recommendation bulletins created to help architects and engineers in preparing specifications for coating steel surfaces. The four publications are: "Specifications for Coating Galvanized Iron Surfaces," "Specifications for Coating Steel Water Tanks," "Specifications for Coating Metal Window Sash," and "Specifications for Coating Structural Steel." Rust-Oleum Corp.

. . . for your copy, circle No. 313

How carbide punches and dies doubled production

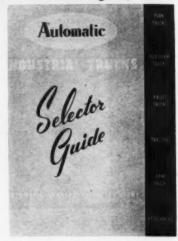
How the press production rate of punched tab surface is 0.28-inch thick steel stock was more than doubled following a change from steel to carbide punches and dies, is described in Report No. 574 which covers the experience of The Air Preheater Corp., Wellsville, N. Y. In addition to higher press speed, the report shows machine down-time and regrinding costs reduced to less than one-eighteenth. Kennametal, Inc.

Specifications for hundreds of aluminum alloys, forms

An aluminum mill products brochure giving complete specifications for hundreds of alloys and forms of aluminum, will enable designers, engineers and buyers to pinpoint specific properties and apply them accurately to desired end use. Starting with aluminum's advantages, the 18 pages cover alloy and temper designations, fatigue and shearing strengths and various alloys available in foil, sheet and plate, wire, rod and bar and other shapes. Reynolds Metals Co.

. . for your copy, circle No. 315

20-page chart-type book is truck selector guide



With the bulk of its information in chart form for quick reference, this industrial truck selector guide is designed for anyone setting up a new or revising present material handling systems. It illustrates over 150 models to fit most all requirements. Selection factors considered carefully are capacity, frequency of use, power source and use of semistandard or special trucks. Automatic Transportation Co.

Manganese pan feeder book for ore handling operators

This 16-page handbook is a must for ore and stone handling operators. Its technical and engineering data, application shots, specifications, diagrams and illustrations will provide you with most complete information on manganese steel pan feeders, medium and heavy-duty apron pans. Case histories support the facts presented. Stephens - Adamson Mfg. Co. . . for your copy, circle No. 317

20-page booklet describes the water-bed conveyor

Complete facts on the "water bed" conveyor, including its history and design are presented in this illustrated booklet of 20 pages. It lists some 150 different materials for which the conveyor has been used and goes on to describe the cooling process for various major categories of materials gelatine, resin, metasililcate, confectionery, shellac, sulphur and pure aluminum, to mention a few. Other sections contain tips on determining data for a conveyor operating as a heat exchanger, plus a manufacturing table. Sandvik Steel, Inc., for your copy, circle No. 318

Answers to questions on machine installations

Answers to such questions as: "How do I relocate machinery, "The purpose and advantages of using Unisorb cement," and "Recommendations on the type, densities and thicknesses of Unisorb Pad required for various types of machines" are given in this 6-page engineering data folder. It provides the basic description of Unisorb, its advantages and a special presentation of vibration transmissability as opposed to the driving frequency of machine tools. There are also directions on a "do-it-your-self" leveling mount, and description of two types of self-contained leveling mounts. Unisorb Division, The Felters . . . for your copy, circle No. 319 Co.

Ways to increase storage space, cut handling costs

How you can increase storage space up to 400% and cut handling costs in half is described in this four-pager about Sammons storage racks. It describes and pictures the adjustable boltless rack and the adjustable pallet racks, includes installation photos and a list of well-known users of these products. Sammons & Sons. . . . for your copy, circle No. 320

Data sheet describes green steam cleaner hose

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318

959

Keyed to the color of the hose it describes, this data sheet points out construction details of a new distinctive green colored steam hose for use with all steam cleaners. The hose is reinforced by high tensile, stranded steel wire and braided rayon yarn for cleaner solutions up to 325 deg. F. Specifications as to tube, carcass, lengths, fittings, weight, etc., are included in the data sheet, which features a cutaway to show how the hose is made. Malsbary Manufacturing Co.

. for your copy, circle No. 321 All about pallets, boxes, crates, skids and blocks

If you're in the market for pallets, boxes, crates, skids, blocks or cut lumber, this four-page brochure will give you the facts on how to get whatever sizes, type or quantity you want, be it one or thousands. The leaflet describes and pictures several kinds of pallets and gives data on selection factors for your particular needs. It includes sketches of several styles of both plywood and nailed wood boxes. Hunter Woodworks . . . for your copy, circle No. 322



COMPLETE PACKAGE

Install or move Schramm Compressors anywhere

Compact, easy-to-move Schramm Compressors give you air wherever you need it. Install your compressor anywhere in the plant. Take advantage of unused corners. Relocate to meet emergencies or changes in production plans. Shorten air lines by moving compressor right to the job. Or make it a part of a unit systemadding or removing compressors to meet air requirements.

No Vibration—balanced reciprocating parts provide smooth operation, lengthen compressor life.

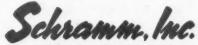
Unit System-no need for costly centrally located compressors and long air lines. Use only the compressors you need-add to them as requirements grow.

No Elaborate Foundations—eliminate this added cost with a vibration-free Schramm installation.

Easy to Move—change the location of your compressor whenever you need.

Compact—takes less space—put your Schramm Compressor anywhere—take advantage of unused corners.

For complete information, write for Catalogs GC-57 and 5510, or see your nearest Schramm Dealer.



MANUFACTURERS OF AIR COMPRESSORS 665 North Garfield Ave. . West Chester, Pa.

Factory Branch—Los Angeles Sales, Rental, Service and Parts—846 E. 6th St., Los Angeles 21, Calif., MAdison 3-4177

Branch Office—Oakland. Pacific Building, 16th & Jefferson Sts., Oakland 12, Calif. HIgate 4-3982

. . . for more details, circle No. 56 on Reader Service Postcard

- Yarway Gun-Pakt Joints are serviced in the line under full steam pressure.
- Costly shutdowns eliminated.
- Maintenance records show 1 manhour per year per joint.
- Fewer expansion joints needed per length of pipeline with Gun-Pakt.



For new Yarway **Expansion Joint Catalog** EJ-1916 write YARNALL-WARING Co., 100 Mermaid Lane, Phila. 18, Pa.

with confidence

... for more details, circle No. 57

How ultrasonic equipment can clean up for you

A line of generators, submersible transducers and transducerized tanks that permit more than 100 combinations and systems is detailed in this four-page bulletin about ultrasonic cleaners. It lists some 40 substances it can remove in seconds, another group it can process (brighten, quench, etch, anodize, etc.) as quickly. Along with this short form catalog that gives complete specifications for the products is Time Saver Proposal Work Sheet for easy selection of ultrasonic equipment. The Narda Ultrasonics Corp. . . . for your copy, circle No. 323

Eight pages on universal worm gear speed reducer

Folder 2724, "Universal Worm Gear Speed Reducers" contains complete data on a new type of reducer designed to operate in three different positions, has a higher capacity with external fins for cooling and is available directly from stock throughout the country. The 8-page folder illustrates various mounting posi-tions that solve problems of space and contains selection procedures for proper applications, and five tables that give service factors, load classes, input horsepower ratings, overhung load ratings and thrust load ratings. Link-Belt Co.

. . for your copy, circle No. 324

Brochure tells features of Challenger lift trucks

Performance, construction and maintenance features of the new Challenger line of pneumatic tire lift trucks are outlined in this 12page brochure. Capacities of 60, 70 and 80 series range from 6,000 to 8,000 lb. at 24-in. load center. Design features described include high horsepower Continental engine, 3-speed synchronized transmission, power steering, all steel body and frame, hinged cantilever hood, lift-out floor plates, easily removed drive axles and quick change clutch. Hyster Company. . . . for your copy, circle No. 325

24-page index to Honeywell industrial, valve literature

In a new 24-page Honeywell Index of Literature you'll find In-dustrial and Valve Division literature, such as Product Catalogs that contain operating principles, instrument characteristics, application data, general specifications

and ordering information. Specifications provide detailed specifications on an instrument or series of instruments. Technical Bulletins deal with fundamental studies of instrumentation, and engineering aspects relating to application of an instrument to a specific process or industry. Industry Bulletins cover instrumentation as applied to an entire industry. Systems Bulletins describe instrumentation concerning a particular system. Instrumentation Data Sheets report actual application of instruments on particular processes in specific industries .-Minneapolis-Honeywell Regulator Co. . . for your copy, circle No. 326

24-page guide book to standardized conveyors

Conveyors of all types are illustrated and detailed in this book: gravity and live, portable belt, horizontal, incline, lowering, to mention a few. You'll find specifications and application pictures, as well as detailed treatment of individual parts, such as ball casters, supports, booms, tables, and roller assemblies. Standard Conveyor Co., for your copy, circle No. 327

150-page catalog of wire rope slings data

About as comprehensive a treatment as you'll find on the subject of wire rope slings is provided in this catalog's 150 pages full of detailed information on the Purple Strand brand. Plus a detailed index and a numerical list of slings and swaged fittings, there are over 20 sections of such subjects as sling hitches; grommet, single part, double part, bridle and braided slings; fittings; lubrication and cleaning; sizing and cutting rope ends; applying clips; how to caliper wire rope, and manila rope and chain data. Bethlehem Steel . . . for your copy, circle No. 328

All about trucks, dollies, casters, wheels and jacks

In this 3-color, 12-page catalog there are specifications and illustrations on 44 models of two wheel trucks — 12 types of dollies 4 wagon trucks — 24 platform and shelf truck models - many styles of casters, plus jacks and semi-live skids. Also included are complete specifications on demountable rubber tired, plastic, semi-pneumatic and full pneumatic wheels. Nutting Truck and Caster Company

WESTERN INDUSTRY - April 1959

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Service



Concise selection data for users of a-c. motors

Concise selection data to users of a-c. motors from one through 200 hp. is included in this 12-page motor selector booklet. Explanations of NEMA design classes, speed-frequency relationship, current and torque values, as well as frame selection tables and complete dimension information for standard frames and mechanical modifications for all frame sizes from 182 through 6085 are provided. Additional photos illustrate special-purpose motors made by the firm for use in unusual temperatures or atmospheres. Reliance Electric and Engineering Company . . . for your copy, circle No. 330

Chart lists do's and don'ts of grinding wheel safety

Ten "Do's" and ten "Don'ts" of Grinding Wheel Safety are listed brightly on a red, white and black 12" x 12" wall chart. Terse copy, easy to read, easy to remember, the chart is designed for hanging in tool rooms, tool cribs, bulletin boards, and on or near grinding machines. The Carborundum Co.
... for your copy, circle No. 331

Aluminum rolled tooling plate and how it's used

Kaiser Aluminum's rolled tooling plate used to make industrial tools, jigs and fixtures is described in a new, illustrated 8-page brochure. It describes the tooling plate's many advantages in construction of industrial tools because of its light weight, fine grain, freedom from porosity, excellent machined flatness, easy machinability, weldability and comparable economy. Kaiser Aluminum & Chemical Sales, Inc.

Specifications data on forged steel unions

A new illustrated forged steel union catalog covering the complete line of W-S unions provides detailed specification data on all types, sizes, materials, and pressure ratings. Copy points out application advantages and features of drop-forged, maximumstrength W-S Unions. The catalog covers latest additions to this line. H. K. Porter Company, Inc., Forge and Fittings Division.

. . . for your copy, circle No. 333

New Lightweight, Hydraulic



for any standard double faced pallet

With Colson Leverlift pallet truck one man can easily handle bulky loads up to 2500 lbs., even in crowded areas. Short 240-degree turning arc provides greater maneuverability. Exclusive new Roll-O-Cam feature makes for quick pallet entry, prevents sliding and skidding, saves wear and tear on pallets. New balanced-load design with wider wheels is easy on floors and manpower. Spring counter balanced handle, fast action hydraulic pump and smooth rolling action gets more work done in less time.

Phone or write today for complete information.

1458 Different



Kinds, Types and Sizes

. for more details, circle No. 58 on Reader Service Postcard

WESTERN INDUSTRY - April 1959

See listing in Directory Section

NEW EQUIPMENT for Western plant operation production, and maintenance

USE RIP-OUT POSTCARD, page 130, for more information on products described

RECIPROCATING AIR COMPRESSORS

. over 200 models, from 1/4 to 20 hp.



This complete line of air compressors for automotive and industrial applications are of the reciprocating type, and available in over 200 models, with motor or engine capacities from 1/4 hp. to 20 hp., air displacement up to 92 cfm., and tank capacities up to

200 gal. Both horizontal and vertical mounted tank models are equipped for automatic start and stop operation; horizontal models also offers continuous service operation. All are loadless starting; motor is allowed to attain full speed before compression starts. Lincoln Engineering Co.

. . . for more details, circle No. 334

ELECTRIC WELDER

. . . with fully sealed semi-metallic rectifier



Used with three-phase power lines, this new welder, SR-1000-A1, features a completely sealed semi-metallic rectifier. The unit delivers 1,000 amps. of d-c. at 40 v. on a 100% duty cycle. Single current range adjusts output from minimum of 200 amps. to maximum of 1,600. Proved to be an exceptionally satisfactory power source for heavy submerged arc welding, the plasma jet

process, Arcair gouging and some electric furnace applications, it requires less than 9 sq. ft. of floor space. Miller Electric Mfg. Co., Inc.

for more details, circle No. 335

NEW SOCAL INDUSTRIAL GREASE

. . . extreme pressure, multi-purpose

This new, extreme pressure, multi-purpose industrial grease with high melting point of 500 deg. F. plus, is available in three grades. Called Chevron Duraplex Grease-EP, it contains a new type of thickener and maintains high film strength under extreme pressures, preventing metal to metal contact and subsequent bearing failure. It's water-resistant, non-corrosive and non-toxic, making it suitable for

universal plant use. Its versatility can reduce inventories, application error, investment in dispensing equipment and manhours by replacing most industrial greases. Standard Oil Co. of California. . . . for more details, circle No. 336

NEW DIATOMITE FILTER

. . easy-cleaning, with assured cake stability



Combining the cake stability of a horizontal plate with dry cake automatic discharge, this new type diatomite filter is known as the Model HR. A totally enclosed pressure type that can be cleaned with complete cake removal without opening the filter, its

plates are precoated and operate in a horizontal position, this assures cake stability without danger position. This assures cake stability without danger of cracking or slipping. Sparkler Mfg. Co.

. . for more details, circle No. 337

FLEXITORQ MOTORS

. . . with fast response, wide speed range



Faster response, a wider speed range and higher overload capacity in a lighter, more compact machine are features of these Flexitorq Motors. Available in ratings of 1 to 200 hp., in drip-proof and drip-

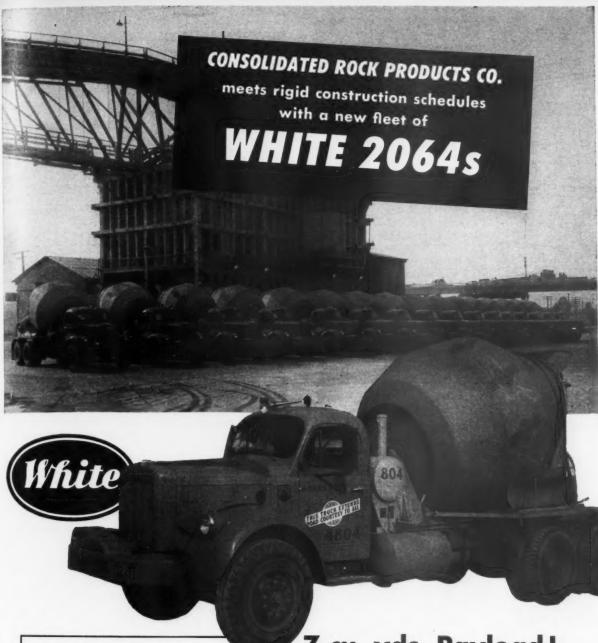
proof guarded enclosures, these d-c. units are designed to supply constant or adjustable speed for driving machine tools, metal rolling, drawing or forming machines, cranes, conveyors, test stands and special automated machinery. The Louis Allis . . . for more details, circle No. 338

LIGHT-DUTY, LEVELLING MACHINERY MOUNT . . . for simplified machine installation

Developed for speeding and simplifying installation of light and medium-duty machinery in plants and offices; the Unisorb Level-Rite 200 Series machinery mount is designed for individual loadings up to 200 lbs., psi. It features a vibration control pad held in an all-steel housing, which supports a levelling post and lug. Unisorb Division, The Felters Co.

. . . for more details, circle No. 339

Representing: Automatic Transportation Co. • Nutting Truck & Caster Co. • Arrow Products, Inc. • Ideal Stencil Machine Co. • Economy Engineering Co. • Economy Baler Co. • Faultless Caster Co. • G. B. Lewis Co. Whiting Corp. • Humphrey Elevator Co. • Convoy, Inc. • Penco Engineering Co. • Pacific Union Metal Co. FOURTH STREET • OAKIAND CAUFORNIA • TELEPHONE Templebar 6-2087 OAKLAND CAUFORNIA



Western construction projects demand dependable service.

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39

In Southern California, Consolidated Rock Products gives it, with their new White 2064 fleet, equipped with valve-in-head engines, 5-speed main transmissions, 4-speed auxiliary transmissions, 10.3 special nylon tires on the front; 8:25 x 20 extratread tires on the rear, Timken SLHD rear axles with rubber suspension instead of springs, and 7 cu. yd. Whiteman Mixers.

THE WHITE MOTOR COMPANY

CLEVELAND 1, OHIO
Factory Branches, Distributors & Dealers Everywhere

7 cu. yds. Payload!

You can get payloads like this and earn more with the White 2064, a standard production model for the construction industry from White's new line of trucks. Get complete information about this White Factory-engineered tandem chassis...call your White representative today!

You get the Full Measure with White!

FOR MORE THAN 55 YEARS THE GREATEST NAME IN TRUCKS

. . . for more details, circle No. 60 on Reader Service Postcard
See listing in Directory Section



Western Factory Sales Representative
GRETHER & GRETHER, P. O. Box 47, Stockton, California
for more details, circle No. 61 on Reader Service Postcard



In Master Hi-Pressure Blowers you won't find those hidden short cuts in manufacturing that may save a little on initial cost but prove so expensive to the user in the long run. These blowers, like all Master Air Moving Equipment, are built strenger to last lenger-for performance you can depend on!

Why not find out about Master Hi-Pressure Blowers-for combustion air, water blow-off, convection cooling, or any installation requiring steady air pressure or suction. New Literature available. Write now for your free copy.

Makers of: Backward and Forward Curve Blowers, Ventilating Sets, HP Blowers, Air Washers, Fume Separators, Axial Fans, and other all moving equipment.

MASTER FAN CORP. 1323 Channing Street Los Angeles 12, California 1323 Channing Street Serving Western Industry for over 39 Years.

. . . for more details, circle No. 62 on Reader Service Postcard

ELECTRON BEAM WELDER

joins reactive, high-melting point metals



When an engineer operates this new welder to successfully join reactive and high-meltingpoint metals, it applies a high intensity electron beam to weld beryllium, molybdenum, tantalum. zirconium, hafnium and

exotic metals which previously could other not be welded satisfactorily, or were very difficult to weld by conventional techniques. Application of the process will require custom built equipment for specific jobs. Air Reduction Pacific Co., a Div. of Air Reduction Co., Inc.

. for more details, circle No. 340

LIGHTWEIGHT, LOW COST MANUAL VALVE . . . designed for 3,000 psi. oil systems



Designed specifically for use on oil systems with pressures up to 3,000 psi., this low cost 4-way manual valve is lightweight and capable of withstanding proof pressures of 4,500 psi. and instantaneous surges of 9,000 psi. It is constructed of high tensile heat treated aluminum. Maintenance is reduced and operational life pro-

longed by incorporating moving parts internally (detent disc, ball, and stops) so they are constantly lubricated by the flow of hydraulic oil. Barksdale Valves. . . . for more details, circle No. 341

TWO NEW PORTABLE ELECTRIC DRILLS . . . ½-in, special and ¼-in, low-cost units



Recently added to a line of portable electric drills is a completely new ½ in. special drill (Cat. No. 679 at left), with a 62% power-shown increase over previous models. Ideal for extra calibre drilling in ma-

chinery, rigging, construction and repair work, it drills diameters up to 1/2 in. steel, 3/4 in. in masonry, 1 in. in hardwood, and drives hole saws up to 2 in. Weighing only 7½ lbs., the unit is compact and close-coupled for maximum efficiency. The same firm has also unveiled an all-new low cost 1/4 in. drill (Cat. No. 680), for use in light automotive work, service trades, farm repair jobs, etc. Weighing only 3 lbs., the unit has a drilling capacity up to 1/4 in. diam. in steel, and 1/2 in. diam. in hardwood, and can drive hole saws up to 11/8 in. diam. in any material a hack saw will cut. The Black & Decker Mfg. Company. . . . for more details, circle No. 342

BRAZING ALLOY FOR HIGH-TEMP SERVICE ... with low boron content, wide melting range

A new high-nickel brazing alloy for high-temperature service has low initial hardness and produces joints with lower hardness that are more easily machined. Hardness before brazing is 35 to 40 Rockwell C, softest of all nickel-base brazing alloys. Wall Colmonoy Corp.

SHURE-DRIVE HAMMER ... with head suspended from handle



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Eliminating much of the fatigue of hammerin work, this new type hammer is of radically new design, with the head of the hammer not rigidly connected to the hammer handle but suspended from it by elastic shocks within the head housing. These shocks, or "O-Rings," are of a resilient material with energy absorbing qualities. It is by suspending the hammer head that

impact shock is minimized. Ramset Fastening System, Olin Mathieson Chemical Corp.
... for more details, circle No. 344

WORK TRANSFER DEVICES

... system for conveying materials

In this complete new line of work transfer devices are building block conveyors from 2 to 12 in. wide; travel tracks and trolleys for moving chassis; harness cable boards; bulky units; electromechanical assemblies of all types; transport dollies that fit right into the assembly line for carrying heavier loads; unit integral conveyors 15 to 30 in. long, and cleat conveyors for speed grades. The integrated



transfer system includes motor drives of various types, both constant speed and variable with speeds up to 200 ft. per min. Alden Systems Co.

... for more details, circle No. 345

HITE-CHEKS

... eliminate chatter and vibration

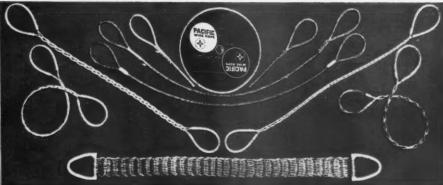


Designed to eliminate chatter and other vibration in the transfer of dimensions set up by "Hite-Icators", Riser Blocks, Gage Blocks, etc., these Hite-Cheks utilize a new lightweight, aluminum, tapered - box construction. Uprights provide rigidity and stability in supporting any dial test indicator, in any position. Sturdy bases

with hardened and lapped graphite steel wear pads provide smooth, easy movement. Industrial Products Division, Brown & Sharpe Manufacturing Company. . . . for more details, circle No. 175

MAXIMUM strength MAXIMUM savings with PACIFIC WIRE ROPE SLINGS!





Only Pacific Wire Rope slings are "Equalized"— giving added flexibility. Maximum strength right from the start — removes initial stretch, back twist and tendency to kink — compacts rope, resists bridging, strand nicking and crushing caused by sharp edges and right-angle bends. Complete range of sizes and types of splice for use in or out of plant.

Pacific Wire Rope Company has the largest rigging loft on the Pacific Coast with complete facilities for standard splicing, swaging and plastic coating of slings, fittings, etc.



1840 East Fifteenth Street Los Angeles 21, California

PACIFIC WIRE ROPE COMPANY

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—See listing in Directory Section



Stack-11-Mest* TOTE PANS

IN SIZES TO HANDLE EVERY PRODUCT



WITH ACCESSORIES FOR GREATEST VERSATILITY



PAN COVERS

Molded of Fiberglass Reinforced Polyester in colors to match pans * Snug fit — keeps out dust and dirt * "Contour offset" for safe, high stacking of covered pans * Nest when not in use * Use as trays if desired * Popular sizes — fit the 22x14x8" and 27x16x11" Stack-n-Nest pans.

• Moldad of Fiberglass Reinforced Polyester in colors to match pans • Four heavyduty, easy-rolling swivel casters • "Contour offset" for safe, secure stacking of pans • Quick, easy multiple handling and movement — loaded or empty • Rugged construction for big pay loads • Popular sizes — fit the 22x14x8" and 27x16x11" Stack-n-Nest pans.

STACK-n-NEST PANS PATENTED Dept. WI, Watertown, Wis. Complete West Coast Representation 2,823,828 2.823,829

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WE HOLD THE ANSWER

to your stainless steel fabricating problems

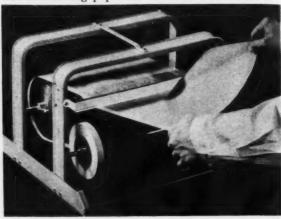


. . . for more details, circle No. 65 on Reader Service Postcard

LOW-COST PACKAGE DEAL

.. with apron tapers, masking paper

Two new apron tapers and a new, lower-priced line of masking paper for the industrial trades are



offered as a combination in Deal PTT, which features a 20% discount on the portable tapers, with purchase of the new paper and Scotch brand masking tape. The deal expires May 30, 1959. Minnesota Mining and Manufacturing Co.

. for more details, circle No. 346

PIN-CAGE CENTRIFUGAL CLUTCH ... for rugged use, substantial savings



Developed for rugged use and substantial savings when applied to electric motors and gasoline engines, this pincage centrifugal clutch features two advantages in accelerating high in-ertia loads: (1) the engine or motor can operate at an efficient speed while the load is being accelerated; (2) free-

wheeling in either direction is available when the prime mover is stopped. The new clutch is excellent for stand-by power applications and provides dual drive when applied to a motor engine. Fairbanks-Morse & Co., Magneto Div.

, for more details, circle No. 347

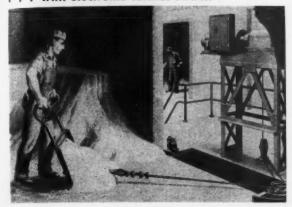
NEW VINYL COATED STEEL . . versatile, comes in many textures, colors



Combining the toughness and structural durability of steel with the appearance and feel of leather, linen or any texture the designer may want, this new vinyl coated steel sheet has widely varied applica-tions. Fabrications ranging from flat work to deep drawing, such as the box shown in right foreground of this picture, are well within the

workability range of the new steel. Able to withstand elongation of at least 30% without damage, it requires little or no post-fabricating processing beyond cleaning. United States Steel Corp.
... for more details, circle No. 348

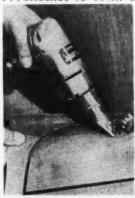
SAFETY POWER SCOOP with electronic control switch



A new electronic safety control is incorporated in this Power Scoop, which is used for unloading bulk materials from box cars into track hoppers, elevators, chutes or onto belt conveyors. Consisting of a power unit, suitable metal scoop, sheaves, cables and controls, the unit is mounted on a rigid base, or shelf, outside of the box car and next to the unloading hopper. The power unit pulls the filled scoop, guided by the operator, from inside the car to the discharge door by means of a flexible steel cable wound onto a grooved drum by the motor. Alden Div., Amercon Corp.

. for more details, circle No. 349

SHEET METAL SHEAR ...attaches to ¼-in. drills



Called the "Docken Shear", this sheet metal shear attaches quickly and easily to leading industrial type ½ in. drills by merely removing the drill chuck and replacing it with the complete, self-contained Docken unit. The shearing blade, mounted between two cutting knives, is given the cutting action of a scissor through an eccentric bearing arrangement on the drill's drive assembly. Radial cuts on

metal sheeting from 16 gage aluminum to 22 gage stainless steel are possible, without distorting the material. C. W. Lind Co.

. . . for more details, circle No. 350

3,000-lb. CAPACITY LIFT TRUCK . . . for either gasoline or LP-Gas

This 3,000-lb. capacity lift truck—the FTB 30-15—is powered by a 4-cylinder heavy-duty industrial engine, delivering 35 brake horsepower at 2400 rpm and 97-ft. lbs. torque at 1400 rpm. It comes in either gasoline or LP fuel models, with transmissions available—the standard 2-speed constant mesh transmission, or the optional power-shift torque converter drive. Travel speed with standard transmission is 8 mph. forward and reverse. The optional power-shift transmission has a forward and reverse speed of 9.2 mph. Allis Chalmers Mfg. Co., Engine Materials Handling Div... for more details, circle No. 351

PULLEY with WINGS...



NEW BARRY "QD" WING-TYPE PULLEY from R. & J. Dick

FOR SAFETY, ECONOMY... Where fluids or other waste spill on the pulley or belting, installation of this new wing-type pulley will reduce the hazard of belting breaks and minimize belting replacement costs. Foreign materials run off; they can't cause abrasive wear, or chemical reactions harmful to the strength of the belting. Also, belting wear is retarded because of the reduced area of contact between belting and pulley.

FOR HEAVY-DUTY SERVICE... The pulleys are of sturdy welded-steel construction, and have demountable "QD" type tapered hub assemblies for easy installation. Made in a wide range of sizes.

Call or write for folder, "BARRY 'QD' Wing-Type Pulleys"

Also, Makers Of: adjustable-length "Dixlink" V-Belting versatile, durable "Dixylom" Plastic Belting • Dick Balata Belting Dick Rope V-Belt Drives • Barry Steel Split Pulleys Barry Conveyor Pulleys.

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- SAN FRANCISCO, 510 Bryant St. SUtter 1-1341
- SEATTLE, 307 Maritime Bldg. MUtual 2-1922

R. & J. Dick COMPANY, INC. TOTOWA, NEW JERSEY

THE LATEST AND BEST IN ALL TYPES OF POWER

TRANSMISSION AND CONVEYING EQUIPMENT

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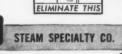
SAFE OPERATION OF OVERHEAD VALVES

with a

Babbilt

Adjustable
SPROCKET RIM
with Chain Guide

- Simplifies pipe layout
- Fits any size valve wheel
- Easy to install and operate
- Operates any valve from plant floor
- Time and money saving fixture
- No maintenance, first cost only cost
- Packed, completely assembled, one to a carton
- Hot galvanized, rust-proof chain available for all sizes
- Easy to follow instructions with each unit
- Your supplier carries complete stocks
- Write for new descriptive catalog sheet and prices



Babbitt

13 BABBITT SQUARE, NEW BEDFORD, MASS., U.S.A.
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IN EVERY SHAPE AND SIZE FROM LOCAL WAREHOUSE STOCKS

ROUNDS • SQUARES • RECTANGULARS

AMERICAN STEEL

Seamless & Welded
Carbon & Alloy
"SHELBY" Seamless Steel Tubing
Welded Steel Tubing
— also —

Steel Bars
HOT & COLD FINISH
Carbon & Alloy Grade
PROMPT DELIVERY FROM LOCAL STOCKS
Call EXbrook 2-5975





. . . for more details, circle No. 68 on Reader Service Postcard

DEEPWELL TURBINE PUMP

. . . handles more water better, at lower cost



Called the Type G. this deepwell turbine pump is designed for widespread general application by farmers, industry, municipalities and other primary water supply users. According to the manufacturer, the pump-available in both oil-lubricated and waterlubricated models-handles more water with increased efficiency at lower operating costs. The new 10-in. model, for example, delivers one-third more water at 20% greater head than previous models. Overall performance of the pump has been improved over its predecessors by 58%. A major design improvement in the oil-

lubricated series is a new, extra-long, one-piece throttle bushing that serves both as a bearing and as a by-pass seal. Byron Jackson Pumps, Inc.

. . . for more details, circle No. 152 CONVEYOR BELT CONTROL

... senses both load and motion



A new type load and motion sensor to start, stop or control sequencing of automatic conveyorized operations, called Sentron, will signal any combination of conditions involving load or no-load, motion or nomotion of a conveyor belt. It can be used in

industrial, chemical, mining, food processing and related fields to stop other belts or equipment in case a conveyor slips or breaks; to control sequence operation; as a remote control signal; to indicate conveyor slippage or not running empty or loaded. The Johnson-March Corp.

IMPROVED BARREL TRUCK . . . can handle 40-in. barrel, has shorter axle



Two recent improvements in the "Auto-Load" barrel truck are increasing operating range of the chime hook to handle 40 in. high barrels and a shortening of axle length - making overall width narrower than the load, which allows handling and "spotting" barrels in closely packed rows. Of welded heavy duty pipe frame, braced by steel angle cross numbers, this truck

loads and unloads automatically. Nutting Truck and Caster Co. . . . for more details, circle No. 154

CIRCULAR TRASHPAPER BALER ... compresses 8 barrels of trash into 1



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154

959

This circular trashpaper baler that takes only 24 in. square floor space is said to be capable of compressing 8 barrels of trashpaper into one. Called the E-Z Baler, its operation is extremely simple. The lid is swung to one side to open top of container. Trashpaper is thrown in and lid swung closed. Crank handle with rugged sprocket gears is then turned forcing lid down through container, thereby pressing trash tight to bottom of baler. A ratchet handle is at-

tached for exerting extra pressure up to 4,000 lbs. Vernon Tool Co., Ltd. . . . for more details, circle No. 155

DRY-TYPE TRANSFORMERS . . . offer advantages in size, low noise levels

Material advantages both in size and in low level of operating noise, are offered in this new dry-type distribution transformer, which comes in both single and three phase through 500 kva. Development of a wound-and-cut core technique is credited with enabling the Western manufacturer of these units

to make them more compact in dimensions, with lower gross weight. Transformers can be mounted directly to supporting structures or surfaces—and directly connected with rigid conduit—with freedom from the excessive sound transmission normally experienced on these types of installations. In addition to its new dry-type distribution series, the firm also manufactures liquid-immersed and dry-type power transformers to 5,000 kva. Hill Transformer Co., Inc. for more details, circle No. 156

CUT-OFF SAW

... for most metals, many other materials



Files, bearings, cold roll, and other steels, aluminum and brass extrusions, are only some of the metals that this new Navkut saw cuts accurately. Capable of length accuracy and cut parallelism within .003 in. with an unskilled operator, it is a product of "old-fashioned machin-

ing skill and engineering." The new saw's spindle and vise are integral parts of the same casting. Special machining and checking methods permit final alignment of cut to within .001 in. in all planes of the cutting operation. Long research of rpm. and blade materials has resulted in a capability to cut accurately most ferrous and non-ferrous metals, plastic and wood with the use of two different blades and a fixed rpm. Navan Products, Inc.

. . . for more details, circle No. 157

ANOTHER

INSURANCE RMYER



STANLEY G. WULF, Vice President and General Manager of DeSanno Foundry & Machine Company, Oakland, says:

"Industrial Indemnity writes our workmen's compensation insurance and our general liability through Griswold, Withoft & Farley. We like Industrial's progressive nature. They give up-to-the-minute claims and safety engineering services; rehabilitation, too, if it's needed. They work closely with our insurance agent.* Together they've helped us earn a sixteen percent reduction in our experience rate. We also get maximum schedule rate credits for machine guarding. In our business that means more dollars left over for profits. Important? The people of Industrial Indemnity know it is."

*John L. Farley, Ur., of Griswold, Witholt & Farley

MODERN INSURANCE FOR MODERN BUSINESS

INDUSTRIAL INDEMNITY COMPANY

fire · casualty · bonds · workmen's compensation sold by agents and brokers exclusively

... for more details, circle No. 69 on Reader Service Postcard

Pennzoil's NEW Hydraulic Fluid **PROTECTS** LIVES & PROPERTY

Plant managers and safety Engineers who want a true fire resistant fluid that will not ignite can depend on Pennzoil's new fluid FR. Now in use in Aircraft Plants, Oil tool manufacturing plants and numerous industries where molten metal, electric motors or furnaces are a hazard. Will not foam. Not necessary to install special seals or gaskets nor to purchase specially prepared water for make-up. Will not cause skin irritation. Highly filterable.

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THE PENNZOIL COMPANY

1630 W. Olympic Blvd., Los Angeles

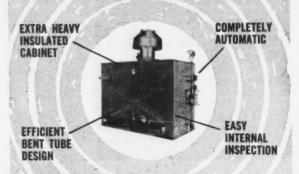
Pennzoil's Hydraulic Fluid FR WILL NOT IGNITE

. . . for more details, circle No. 70 on Reader Service Postcard

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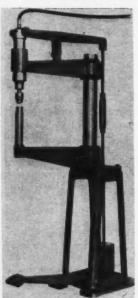
TRANSVERSE TESTER FOR CAST IRON lets you know your "pour" in four minutes



Maximum information on physical properties of gray iron can be obtained conveniently, quickly and at low cost with this tester. Machining is not required on transverse bars, no special training is needed to

operate the machine and there is no need to shield the unit from factory dust. Pasadena Hydraulics, Inc. . . . for more details, circle No. 158

PNEUMATIC PLANISHING HAMMER . . . floor-mounted, with 18-in, throat clearance



Developed primarily for aircraft and missiles industries, to smooth out wrinkles in sheet metal this repeating hammer is operated by foot pedal to bring hammer cylinder down until tool is in contact with the work. Valving is internal, actuated by contact pressure of tool against the work and so long as this pressure is maintained hammer will repeat at high frequency, from 1,500 to 3,000 times per min. Tools include planishing head integral with shank, and chucks to take standard or special tool shanks; anvil is available in special or standard shapes and

heights. Overall height is 53 in.; width, 13 in.; depth 32 in., and weight 255 lb. Uses include peening, crimping, forming, embossing, parts assembling, staking and riveting. Heidrich-Nourse Co. . . . for more details circle No. 150

FORK-OVER-ARM STACKER . low-cost, multi-purpose truck

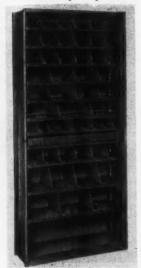


This new lightweight Transporter, Fork-Over-Arm Stacker, Model WOAT can handle either single or double deck block - type pallets or skids, and can perform at maximum efficiency in narrow aisle operations and on floors unsafe for other types of trucks. Available in 2,000, 4,000, and 6,000 lb. capacities, it is built in a wide variety of fork

lengths, widths, and with lifting heights to fit all requirements. The truck has been designed and engineered to incorporate features of the Trans-porter line of operator-led industrial trucks that provide for maximum efficiency and safety. Twocolor brochure giving detailed specifications plus a nomograph for determining aisle requirements on the Fork-Over-Arm Stacker are available upon request. Automatic Transportation Company.

. . . for more details, circle No. 160

SLIDING SHELF SHELVING ... instantly adjustable without tools



Featuring instant adjustability without tools, this sliding shelf shelving comes in eight standard sections and extra parts can be added to tailor - make sections to meet every requirement. It is recommended for storage of files, records, packaged goods, automotive parts, small parts, etc. Shelving sections are 37% in. wide, 12-5/16 in. deep, 84 in. high. All sections are completely flexible, instantly adjustable. Sliding shelves are adjustable on 11/2 in. centers, slip into slots in uprights, automatically lock in place. Quick, adjustable dividers snap in-

to place without nuts, bolts or springs—adjust horizontally on 1 in. centers without tools. Labelholders attach with snap fasteners. Shelf boxes feature slipin, adjustable dividers and finger-grip fronts for quick identification of contents. Lyon Metal Products Co.



And they'll stay down with Magliner magnesium dock boards on the job! Magliners speed loading, eliminate dock congestion... get extra work from power trucks and other loading equipment. Magliners are magnesium-light—easy to put down...easy to move. No heavy lifting... no injury hazards. Men, loads and equipment move fast, sure, safe. Magliners are magnesium-strong, too... built to take it... safely handle loads up to 20,000 lbs. Low initial cost. Less maintenance. Dependable long-life service. Economy and cost-savings right down the line! Put all these advantages to work for you. Put Mag-

liners on your dock!

Write for Bulletin DB-204
MAGLINE INC., P.O. Box 584
PINCONNING, MICHIGAN

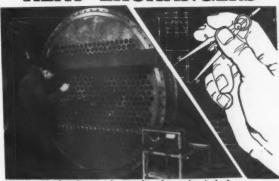
Mag Liner

DOCK BOARDS

Canadian Factory: Magline of Canada, Ltd., Renfrew, Ontario
... for more details, circle No. 72 on Reader Service Postcard
—See listing in Directory Section

-See listin WESTERN INDUSTRY - April 1959

PUGET SOUND FABRICATES



Stainless heat exchanger for electro-chemical plant
... tailored to specialized plant and
equipment requirements.

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ment in steel plate and alloys up to 1". Supply prints for prompt quotation on your next job.

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Request Brochure No. 858

PS

PUGET SOUND FABRICATORS, INC.

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See listing in Directory Section



. . . for more details, circle No. 74 on Reader Service Postcard

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no gear shifts...quiet...clean

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by keeping simple maintenance records. Handy record forms can be obtained by writing us in San Francisco (Room 410). Forms provide a convenient way to record your labor, parts and fuel costs. Compare your



costs with any published reports on electric fork truck

operating costs. You'll find the electric truck has proved much more efficient and economical.

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Pacific Gas and Electric Company

408-X-459

60,000 attend Metal Show; return date set for L. A.

OVER 60,000 persons crowded into the Western Metal Exposition held last month in Los Angeles, and saw the newest equipment and methods used in metalworking.

Running concurrently with the show were technical sessions, which drew over 6,000 interested

listeners.

So successful was the show and conference, that American Society of Metals leaders have set the new Western show for March 20-24, 1961 in Los Angeles.

These next pages spotlight some of the equipment

on display at this year's show.



Weld roll planishing machines for cold work welding are displayed by B. R. Russell of Airline Welding & Engineering Co.



Left to right: Charles Potts and W. S. Montgomery, sales representatives, look over the new Hevi-Duty line of metal-working equipment.

Trent Tube Co. displayed tubing for aircraft missiles. J. J. Harley is on duty. Trent is a subsidiary of Crucible Steel Co. of America.





Jack Sampson (Air Reduction Pacific Co.) shows off the new Heliweld automatic unit which has four sides instead of regular tube construction. The new model is accurate to within 1/10th v.



New furnaces for carburizing up to 2000 deg. F. were featured by J. E. McIntier, district manager, and H. N. Ipsen, president, of Ipsen Industries.



American Brass Co. displayed many metals and products, with (l. to r.) Theodore Meyer Jr., John Moran, and Wm. McLaughlin on duty.

Linde Co. featured an electronic tracer that follows simple pencil or ink line drawing in cutting intricate shapes in heavy metals. I. G. Kepner, Pacific Coast Mgr. of distributor sales, and G. E. Kabacy demonstrated the equipment.





Merit Products had Michael Lulka, shop works, and Bill Gillett, plant superintendent, on duty.



T. K. Radcliffe, dist. mgr., and V. L. Lundeen for National Supply Co. On right is a customer.



Erich R. Lilienthal shows model new Ledley steels in Ryerson booth.



The Harshaw Scientific Div. was manned by J. H. Schering and L. N. Smith, from the Cleveland office.



Arthur E. Falk, general manager, and Burton Falk, engineer, display casting made by Centrifugal Casting Co.



A new hard surfacing rod of pre-sized tungsten carbide particles was a highlight at the Eutectic Welding Alloys Corp. booth.

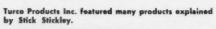


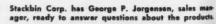
Robert R. Negley was on duty at the Kingwell Bros. Ltd. booth, featuring Oilite products.



Finishing systems were shown at the Sprayking. Inc. booth by Bob Johnson, general sales manager, and Robert Turgeon, Jr.

Scotty Maxwell, Ken Schechter, and Gil Sharkey at the Navan Products, Inc. booth.













General Metals Corp. displayed forgings and other metals products. At left, Roy G. Hoag, district sales manager; and Paul Crippen, assistant to sales manager.



Frank Edwards and John J. Kendrick, sales representatives, showed off products made by Ducommun metals (Ducommun Metals & Supply Co.). Also shown were metals for missiles.



Acme Steel showed savings in strapping. Left to right: Mid Snowdell, Bob Rosenberg, John Everett and Paul Keenig.



Patrick T. Rauen, Chainveyor Corp., tells customers about the newest Chainveyor metals handling system.



Reinforced wheels and tool room wheels were the main products highlighted at the Norton Co. booth. That's Henry Rand on duty.



The latest in electric tools for metalworking were displayed by Robert Currie of Milwaukee Electric Tool Corp.

The many cleaning solutions made by Oakite for metal operations were explained by Leif B. Nerheim, technical service representative.

products.

Asco Sintering Corp. showed off its powdered metal products. Left to right: Tore N. Franzen, sales engineer, and Leyden Swenning.







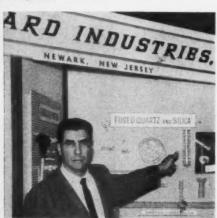
Fabriform Metals Products for missiles were shown by R. E. Shupp and Clarke Bamber.



Products displayed by Pacific Tube created much interest. Left to right: Dave Ladd, W. P. Armstrong, Lou Spitsen.



Mike Seagraves and J. G. Waldron, ad. mgr., featured weld sequence timer controls at the Miller Electric Mfg. Co. booth.



Engelhard Industries, Inc. featured high parity fused quartz and silica, as Richard C. Benton points out.



Charles C. Moore, Jr. and Robert Tod were on hand to explain Narda ultrasonic equipment.



George A. Dudley, sales, showed a new Sendzimir mill for stainless steel at the Jones & Laughlin Steel booth.



Nuclear Systems featured a Gammascan thickness gage. A. J. Stevens, vice president, is on duty.



A model displays a model Denison Engineering Div. metalworking press.

Victor Equipment Co. featured Gas-O-Dome regulators. E. O. Williams, vice president, and Erich Walter, factory representative, on duty.



At the Pop Rivet Div. booth were: John Jurist, Chas Heilig, N. A. Hayner.



The Industrial West

plants

production

distribution

personnel

Fibreboard Plans Plaster Mill, More Gypsum Output

SAN FRANCISCO — Fibreboard Paper Products Corp. has announced a major expansion program that calls for construction of a new plaster mill at South Gate, Calif., coupled with a 60% increase in capacity for its gypsum plant there.

Fibreboard, which manufactures building materials under the Pabco trademark, also recently announced that a \$750-million-ton gypsum deposit was discovered on company-owned property near Apex, Nevada.

The new plaster facility, scheduled for an annual capacity of 45,000 tons,

The new plaster facility, scheduled for an annual capacity of 45,000 tons, will be built adjacent to the South Gate gypsum wallboard and lath producing plant.

Expansion at the gypsum plant calls for additions to current manufacturing facilities—calciners, ingredient feed controls, forming lines and driers, as well as additional warehouse space. Among facilities at the mine site at Apex will be a 8½-mile high-speed trucking road and a crushing and sizing plant

Fibreboard is also building a similar plaster mill at its Florence, Colo. gypsum plant.

Second Expansion in Two Years for Denver Plant

DENVER — In its second expansion in two years, the Heiland Division of Minneapolis-Honeywell Regulator Co. is adding to its Denver plant to meet growing requirements for its industrial and photographic photo product lines.

When the current 'expansion is completed this month, the facility will cover more than 70,000 sq. ft. The new addition will be used for wiring and testing of the division's recording instruments.

Steel Fabricating Plant Scheduled for Flagstaff, Ariz.

FLAGSTAFF, ARIZ. — A \$150,000 fabricating plant to supply steel for the Glen Canyon Dam construction and later for other projects will be built here by Vinnell Steel Co., Baldwin Park, Calif. The facility will process rolled steel, shipped from California, to supply steel penstocks and outlet pipes for the dam.

\$1,000,000 Clay Processing Plant Slated in Idaho

BOVILLE, IDA. — Plans for a \$1,000,000 clay processing plant in Latah County have been revealed by officials of J. R. Simplot Co. The facility will process ceramic clays and separate silica from the clay.

The company also recently announced plans for building a sulfuric acid manufacturing facility in Pocatello, Ida.

Filon Plastics to Build Fiberglass Panels Plant

HAWTHORNE, CALIF. — A nine-acre site at El Segundo Blvd. and Van Ness Ave. here will be the location for the world's largest factory devoted exclusively to production of fiberglass translucent building panels, according to Filon Plastics Corp., which has announced plans for a \$1,000,000 facility.

The 70,000-sq. ft. plant will serve as national headquarters for Filon Plastics of El Segundo, Calif., manufacturer of fiberglass and nylon reinforced plastic building panels, consolidating various of the company's departments under one roof. Filon will continue to operate regional warehouses and sales offices throughout the country.

Industrial Site Survey Under Way in New Mexico

ALBUQUERQUE — Governor John Burroughs of New Mexico has announced that the state Economic Development Commission staff will immediately begin an industrial survey of 64 New Mexico communities. From the survey a directory listing will be prepared showing industrial sites and other pertinent information designed to attract industrial operations to the state.

Reliance Paper Builds New Fresno Facility

FRESNO, CALIF.—Construction has begun on a new office-warehouse building for the Reliance Paper Co., now located at 1356 Abby St. Located on a 2½-acre site in the Fresno Industrial Sites Foundation Tract, the 12,000-sq. ft. facility represents a \$100,000 investment.

Multi-Million Dollar Paper Warehouse in Portland

PORTLAND—A multi-million dollar paper products warehouse, said to be the largest of its kind ever built, recently began full-scale operations here. A public warehouse built by Waterways Terminals Co., a Crown-Zellerbach corporation, it handles products from six C-Z mills in the Northwest as well as from other facilities in the area.

It is located at 3838 NW Front Ave. on 23 acres of land that were filled in with 2,400,000 cu. yds. of material dredged from nearby Willamette River. The facility has 546,806 sq. ft. under roof with a 1,253-ft. covered dock, and provides 485,000 sq. ft. of space for handling paper products.

Facilities permit simultaneous loading of 35 rail cars and 45 motor trucks, and for unloading seven barges, with an eighth barge in reserve.

The conveyor system—1½ miles long—is the longest and largest system ever installed anywhere by Mechanical Handling Systems, Inc., Detroit, Mich. The system is comprised of under-floor conveyor chains and 300 steel carts, each hooking to the chains and capable of carrying pallets that contain one to three tons of paper. The carts can travel at 120 ft. per min. around the 2,800-ft. main line and can be switched to sidings by push-button control.

Other equipment includes a closed circuit television system; a two-way intercom set-up; pneumatic tubes for conveying documents; 2,027 fluorescent light fixtures (with current supplied by 120 miles of electric cable) and a fleet of electric cars that can carry two to seven passengers around the huge building.

Georgia-Pacific Will Erect \$1,000,000 Plywood Plant

samoa, calif. — Georgia-Pacific Corp. has begun construction of a \$1,000,000 sanded plywood plant here scheduled for completion in June. Annual capacity of the facilities will be 90,000,000 ft., and employment will be about 180 persons. A 75,000,000-ft. capacity plywood sheathing plant was recently started by the firm here.



Did You Know...

that, the town of Lufkin, Texas, besides being world famous for coon hunting, and cooking, southern style, is also the home of Lufkin Gears for Industry, Oilfield Pumping Units, and Heavy Duty Truck Trailers?



V. J. Fawcet

that, the town is nestled among the tall pine trees of East Texas, where forests thrive and grow 5 times faster than in other parts of the U.S.? Heavy rainfall and warm temperatures make it so.

that, the great southern paper industry utilizing southern pine, long leaf and loblolly pine, began in Lufkin, Texas—home of the Southland Paper Mills, back in 1937? E. L. Kurth, Board Chairman of Lufkin Foundry and Machine, is President of Southland, and to Mr. Kurth goes the credit for pioneering this vast industry from its infancy. Modestly, however, he would be the last to claim such recognition.

that, Lufkin Oilfield Pumping Units have earned worldwide recognition for performance, dependability, and long life?

that, Lufkin Gears for Industry are fast gaining prominence in the fields of refining, pipelining, marine propulsion, aircraft ground support, and yes, even outer space?

But it's not all sweatin' and straining at Lufkin—the folks there are easy goin' and find time to go cat fishing, coon hunting, squirrel and crap shooting, and sometimes, go in for just plain loafing.



Lufkin rounday

. . . for more details, circle No. 76

M-H, Packaging Conference Award

san Francisco — The largest crowd ever — 275 persons — attended the Fourth Annual Industrial Materials Handling and Packaging Conference held last month at Stanford University.

At the luncheon ceremony, chairman Robert Stevens, Fibreboard Paper Products, presented a \$400 scholarship award to Edward W. Throndson, a Stanford industrial engineering student who will complete his junior year this spring.

The scholarship will apply to his senior year and represents the first such award. Funds for the scholarship were donated by the three sponsoring organizations. The award, planned as an anual conference feature, is expected to be increased for the 1960 conference.

The keynote speaker for the conference was Charles P. Howard, president of Howard Terminals. Mr. Howard discussed "How Management Evaluates Materials Handling and Packaging Personnel and their Efforts."

Kaiser Aluminum to Move General Offices to Oakland

OAKLAND — General Sales Offices of Kaiser Aluminum & Chemical Corp. will be moved from Chicago to the recently-built Kaiser Center here, company officials have announced. Present regional and district sales headquarters will be retained in Chicago. The move will be accomplished in several stages, with completion scheduled for about Sept. 1.

Manning, Maxwell & Moore Moves to Larger Quarters

LOS ANGELES—New Pacific Coast district headquarters at 15205 S. Main St. were occupied last month by Manning, Maxwell & Moore. The expansion move, representing a \$100,000 investment, to an 8,000-sq. ft. building, will double the firm's present space for sales, service and warehousing. The structure is designed to allow for more than 100% expansion in the future.

Long-Bell Gardner Plant Will Up Capacity 50%

PORTLAND—A 50% increase in production capacity for its Gardiner plywood operations is planned by the Long-Bell Division of International Paper Co. on completion of an expansion program. The firm will build a 42,000-sq. ft. addition to the present plant, providing facilities that will produce some 23,000,000 sq. ft. of plywood annually.

Major equipment installations call for a barker, lathe, clippers, dryer and a hot press for the plant. About 60 additional jobs will be created by the expansion program, which includes adding offices as well

Garrett Freightlines Extends N. M. Service

POCATELLO, IDA.—Garrett Freight Lines has announced it is extending services from Farmington, N. M. to Albuquerque, N. M. Manager and personnel for the new Albuquerque terminal will be announced later. Plans are presently under way for the merger of Inland Motor Freight, Pacific Highway Transport and Northwest Freight Lines with Garrett, which will give Albuquerque shippers one-carrier service to all major West Coast ports, most of Utah, and Idaho and Montana.

M-H Show, Open House at Air-Mac Move in Portland

PORTLAND—A material handling show was combined with an open house to mark the recent move of Air-Mac of Oregon, Inc., into new and larger quarters at 2727 S. E. Grand Ave.

On display and in operation during the three-day show in March were fork lift trucks, power belt and gravity conveyor systems, platform trucks, sweepers, vacuum cleaners, elevating tables and specialized containers. Also featured was the new Towmotor lift trucks with a Towmostatic drive.

The new facility includes showrooms, parts department, service and repair shops and offices. Air-Mac, headquartered in Seattle, has branches in Tacoma, Yakima and Spokane, Wash.; Missoula, Mont., and Portland and Eugene. Ore.

Public Service Co., Colorado, Plans \$190,000,000 Expansion

DENVER — A \$190,000,000 expansion program for the next five years by Public Service Co. of Colorado has been outlined by Robert Person, president.

Robert Person, president.

The company's new chief executive said the goal is to add more electric generating capacity than PSC had in total six years ago, increasing to more than 1,000,000 kilowatts.

The program also calls for new gas facilities, transmission and distribution lines, a new office building and many other projects to meet the growing demands of the area.

Massey-Ferguson Expands Facilities in Portland

PORTLAND—Massey-Ferguson Ltd. will enlarge its office and warehouse space here with an expansion at its facilities at NE Killingsworth Ave. and 83rd Ave. The expansion calls for a 6,500-sq. ft. building and a 5,000-sq. ft. covered storage area, plus parking facilities. Massey-Ferguson, with industrial division headquarters at Wichita, Kans., manufactures material handling equipment.

Plastic Bag Plant Slated For Woodland, Calif.

WOODLAND, CALIF.—Construction plans for a Western plant for manufacture of plastic bags have been announced by Kordite Company of Macedon, N. Y.

The 51,000-sq. ft. facility will be built on a 30-acre tract on E. Beamer

St., near East St.

Completion of the plant and start of production are scheduled for early summer. Total employment when operations are full-scale is expected to be about 100.

The plastic bags to be manufactured are used for packaging foodstuffs and in dry-cleaning establishments.

Dodge Mfg. Co. Plans Its First Warehouse in N.W.

PORTLAND - First distribution warehouse in the Pacific Northwest for Dodge Manufacturing Co. is now under construction at 2515 Stubb St. in Milwaukie Park.

The \$70,000, 10,000-sq. ft. office-warehouse is scheduled for completion July 1. Dodge, headquartered in Mishawaka, Ind., manufactures a diversified line of power transmission machinery and materials handling equipment.

\$2,000,000 L.A. Facility Planned by Catalina, Inc.

LOS ANGELES - Plans for a \$2,-000,000 headquarters and manufacturing plant here have been an-nounced by Catalina, Inc., a division of Kayser-Roth Corp., New York. The manufacturer of sports clothes and swimwear, which now occupies leased quarters here, has scheduled construction to start in

M. E. Canfield, Pioneer M-H Firm, Notes 50th Year

LOS ANGELES—It's a fiftieth anniversary this year for the M. E. Canfield Co., first firm in Los Angeles to specialize in material handling equipment. Founded in 1909 by Milton Canfield, Sr., the firm in 1915 began handling the first of its present major lines, that of the Lewis-Shepard Co.

Presently under leadership of Arthur Canfield and Milton Canfield, Jr., sons of the founder, who died in 1944, the firm operates from its 17,000-sq. ft. headquarters at 419 E. Third St. It serves Southern California industry from Bakersfield to San Diego, representing leading U. S. material handling and storage equipment manufacturers.

Plus its personnel in sales and service, the firm employs eight technicians in a separate 10,000-sq. ft. fabrication shop where gravity and power conveyors, trucks, lifters, racks and allied equipment are produced to meet special needs of customers.

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Pump

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Send us the details on your "high pressure" pumping problem. We'll be glad to send you complete recommendations.



INDUSTRIAL PUMPS

San Jose 1, Calif. Lansing 4, Mich. Dept. WI-7 . for more details, circle No. 78 See listing in Directory Section

\$2,000,000 Plant for Climax Molybdenum

CLIMAX, COLO. - Climax Molybdenum Co. has installed a new \$2,-000,000 plant at its huge mine here to recover minute amounts of tungsten and tin from its processed molybdenite ore as a natural resources conservation meas-

The new plant design, supervised by Snell Burk, mine and mill design engineer for Climax Molybdenum, is a true needle-in-thehaystack operation.

The Climax-developed process is selective enough to recover five particles of tungsten mineral in every 64,000 particles of finely ground hardrock molybdenum ore, and a single particle of tin out of each 600,000 particles of such ore.

The plant has been engineered to process some 60,000 pounds of the ore each 24 hours.

One reason that Climax was willing to gamble thousands of dollars of risk capital and thousands of hours of research and design work

to perfect the by-products process is that the tiny particles of cassiterite now being recovered represent the only tin mineral being produced in the United States.

The experimental operation did not prove economically practical, according to Burk, until 1946 when the Humphreys Investment Co. of Denver made available a new spiral concentrator.

The concentrator is the main-stay of the new \$2 million plant. The plant itself represents an expansion of by-products recovery to keep step with the recent expansion of molybdenum mining processing facilities at Climax. That expansion, in turn, was dictated by the growing need of defense and industry in this country and among our allies for steel-toughening "moly."

By refining several steps in its new plant, Climax now is able to recover an average of five particles of tin dioxide per 3,072,000 par-

ticles of ore.

Servomechanisms Begins **Expansion of Facilities**

HAWTHORNE, CALIF. - A 48,000-sq. ft. 125000 Aviation Blvd. is under con- in one area.

struction by Servomechanisms, Inc., designer and manufacturer of electronic and electromechanical subsystems and components. The new building, scheduled for occupancy June 1, will serve plant adjacent to its present facility at to consolidate personnel and equipment



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P·I·E has the most modern equipment in the world. But no one machine is half so important as the man or woman who brings it alive. It takes the will of a man-the desire and determination to "deliver the goods...in good shape, in good time!" From the

> voice on the phone, to the hand at the wheel -"People Spell The Difference at P·I·E!"



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TERMINALS & OFFICES IN PRINCIPAL CITIES. GENERAL OFFICES P-I-E BLDG., 14TH & CLAY STREETS, P.O. BOX 958, OAKLAND 4, CALIFORNIA

P.I.E Delivers the Goods in good shape . . . in good time! . . . for more details, circle No. 79 on Reader Service Postcard

Ford Plans Consolidation, **Expansion in Los Angeles**

LOS ANGELES-Ford Motor Co. has announced plans to consolidate all its production in this area into its assembly plant at Washington and Rosemead Boulevards, where a \$2,000,000 expansion and modernization program will be effected to make the operation one of the most highly-automated in the industry.

Ford will close its 30-year old Long Beach plant and transfer personnel to the new facility. When consolidation and expansion is completed, the new plant is expected to have an output of some 50 units an hour, totaling a value of \$1,000,000 a day. Ford and Mercury lines will be integrated in the

Republic Supply Purchases Gar-Bro Wheel, Perry Kilsby

LOS ANGELES-Republic Supply Co. has purchased the Gar-Bro Wheel Co., manufacturer of cushion and pneumatic-tire mounted disc wheels, and Perry Kilsby, Inc., Western tubing distributor.

All manufacturing operations of Gar-Bro Wheel, a division of Garlinghouse Brothers, will be shifted to the new owners' plant at 5022 Triggs St., Los Angeles. Another Garlinghouse division, Gar-Bro Manufacturing Co., will continue to operate in its same location at 2415 E. Washington Blvd., for manufacture of Gar-Bro equipment for the construction industry.

The Kilsby firm, which handles all

types of tubing-aluminum, steel, carbon, alloy, stainless and PVC-will retain its name and continue operations at 2591 Malt Ave. The company has offices in San Diego, San Francisco and Seattle, as well as sales representatives in other Western cities.

The Gar-Bro wheel operation will be directed by Robert E. Deshon, Republic's manufacturing division general manager. Kilsby personnel will remain intact, with Perry Kilsby, the founder, remaining as general manager.

Seattle Warehouse Center Opened by Eutectic Alloys

SEATTLE - Eutectic Welding Alloys, Northwestern Division, is establishing a warehouse-service center for distribution of its welding alloys in the Northwest area, according to R. J. Punnett, director of warehousing for the firm. Peter Nuno is in charge of the facility, located at 2712 Second Ave.

Idaho Pipe Company Plans \$225,000 Expansion

CALDWELL, IDA.-Idaho Concrete Pipe Co. will expand its manufacturing facilities for pre-stressed concrete structural members, according to a recent announcement. The firm plans to invest about \$175,000 in improvements at the Nampa plant, 222 Caldwell Blvd., and about \$75,000 at facilities here.

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CM METEOR ELECTRIC WIRE ROPE HOIST 1/2 to 5 ton capacities - Compact, enclosed design. Low headroom. Continuous duty motor with thermal overload protection for heavy duty service. Precision bearings and helical gears for long life. Only 110 volts at push button control. Hook suspension; plain, gegred or motor driven trolley.



CM LODESTAR ELECTRIC CHAIN HOIST-1/2 to 2 ton capac ities—First truly heavy duty version of small electric hoist. ¼ ton model weighs only 51 lbs. Heavy duty self-adjusting brake, plus exclusive regenerative electrical braking. Upper-lower safety limit switches. CM-Alloy load chain. Single and three phase.

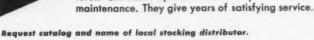


CM CYCLONE Hand Chain Hoist-1/4 to 10 ton capacities -Easy to carry. One ton model weighs only 36 pounds. Made of tough aluminum alloy. CM-Alloy load chain. High efficiency. Lifetime lubrication.

CM PULLER -"The One Man Gang"- 1/4 to 6 ton capacities —Lifts or pulls at any angle. Lever handle operation Automatic load brake holds at any point. ¾ ton model weighs only 13 pounds and fits in a tool box. CM-Alloy load chain.



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WESTERN INDUSTRY - April 1959

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. for more details, circle No. 81 See listing in Directory Section

11th Industrial Engineering Institute



OPENING SESSION—The gentlemen above launched the sessions at the Berkeley campus of the University of Calif. Left to right: George P. Redman, Berkeley sessions chairman; E. P. DeGarme, chairman, Berkeley planning committee; Glenn T. Seaborg, chancellor of the Berkeley campus; E. C. Keachie, associate professor of industrial engineering, Berkeley.

LUNCHEON SESSION—Featured speaker at luncheon was Lillian M. Gilbreth, who spoke on "Long Range Planning." Left to right: E. C. Keachie, Arthur M. Ross, Mrs. Gilbreth, Robert G. Sproul (former president of the University), E. Paul DeGarmo.



\$150,000 Expansion for Athena Mill Co.

PENDLETON, ORE. — Athena Mill Co. plans a \$150,000 expansion program that calls for a chipping plant in conjunction with its stud mill operations at Athena.

The firm will add equipment capable of barking 36-in. logs and a chipper expected to produce 80 units per shift.

wasted, leaving only bark and sawdust to be disposed of. Athena will supply carload shipments of wood chips to the Wallula subsidiary plant of Cascade Kraft Corp.

Fixture Firm Expands

PORTLAND-L. & M. Woodworking Co., manufacturer of store fixtures, plans to build a 10,000-sq. ft addition to its facil-The process will use wood otherwise ities at NE 49th Ave. and Pacific St.

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Los Angeles Area Plant To Be Built for Transicold

LOS ANGELES—Plans for construction of a new factory for Transicold Corp., following its recent purchase by Freightline Corp., Portland, have been announced by the new owner, which is the truck-manufacturing subsidiary of Consolidated Freightways, Inc., Menlo Park, Calif.

Transicold, which manufactures mobile refrigeration equipment for truck trailers and mobile air-conditioning equipment for special uses, is presently located at 3211 S. Hooper Ave. here The new plant, slated for mid-summer occupancy, will be built on a 3½ acre site on Greenwood St. in Montebello.

\$1,500,000 Plant Being Built by Hoffman Electronics

EL MONTE, CALIF.—A \$1,500,000 plant that will double production capacity of Hoffman Electronics Corp. is being built here by the Los Angeles manufacturer. Construction has already begun on the facility, which is scheduled for completion in September.

Located on an 18-acre site, the facility will be used as administrative headquarters and for producing solar energy conversion de-

Colorado Springs Bearings Firm Doubles Space

colorado springs, colo. — An addition to the Rocky Mountain Metals Division, Inc., 3200 N. Century Ave., which will double the company's space is nearing completion, according to John A. Gerzina, general manager.

The firm, producing self-lubricating bearings, is a division of International Powder Metallurgy Co. of Ridgeway,

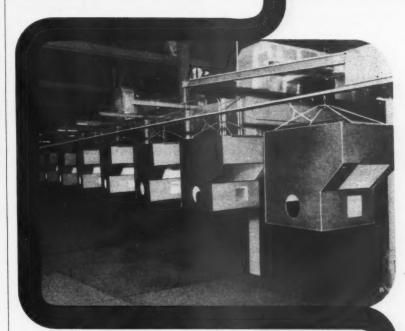
Ultronix, Inc. Moves to New San Mateo Plant

san Mateo, calif.—Ultronix, Inc., has completed its move into a new \$100,000, 10,000-sq. ft. plant at 111 E. 20th. The 2½-year-old firm manufactures precision wirewound resistors and is presently the third largest supplier in the country, serving such firms as Douglas, Lockheed, Ampex, MIT, and Sperry-Rand.

L.A. Firm Opens Aluminum Process Plant in Phoenix

PHOENIX—A facility to process hard coating for aluminum alloys has been opened at 25 S. 41st St. by Sanford Process Co., Inc., Los Angeles. The operation, handled by the American Plating and Anodizing Co. as manageragent, is headed by *Richard Lund*. Sanford also has a licensee firm here, the Francis Plating Co., 1122 W. Hilton.

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be built soon by Weyerhaeuser Timber Co. The new facility will be an end glue lumber plant designed to upgrade defective lumber by removing defects and end-gluing pieces into longer

Capacity of the new addition, slated for operation within six months, will be 10,000 to 15,000 ft. a day. The plant will produce cedar siding, clear hem-lock finish and door jobs. Its products will be marketed as "Nu-Lock" by Weyerhaeuser Sales Co.

Dayton Rubber Acquires Two Western Companies

LOS ANGELES - Dayton Rubber Co., Dayton, Ohio, has recently acquired two Western aircraft equipment manufacturing firms, Hardman Tool & Engineering Co., Los Angeles, and Aircraft Standards, Inc., Santa Monica.

Hardman is the nation's largest manufacturer of aircraft seats, as well as ejections seats, shoulder harness inertia reels, fuel tanks and baggage containers. Aircraft Standards produces highly engineered tools, dies and fixtures for aircraft and missile industries.

Rubber's program to become a major other industries.

Weyerhaeuser Timber Plans supplier to the aircraft and missile industries. Earlier this year the firm estab-\$200,000 Addition

RAYMOND, WASH. — A \$200,000 addition to its sawmill operations here will produce oxygen hose and face masks and allied products.

Another Dayton subsidiary, American Latex Products Co. at Hawthorne, Calif., is a supplier of urethane foams. Also at Hawthorne is Dayton's new Freedlander Research Laboratory.

Western Nuclear Plans \$1,000,000 Expansion

JEFFREY CITY, WYO.—A \$1,000,-000 expansion of its Split Rock uranium mill here has been announced by Western Nuclear Corp. Construction of the addition, which will increase the mill's capacity from 440 to 850 tons per day, is to start this month, according to Western-Knapp Engineering Co., San Francisco, which was awarded the contract for the expansion project.

Colorado Plant Sold

PUEBLO, COLO. — A blast furnace slag processing plant has been sold to the Haystack Mountain Development Co., a subsidiary of the Santa Fe Railroad, by Arthur L. Allen, who operated it as an individual contractor on a site owned by the Colorado Fuel & Iron Corp. The acquisitions tie in with Dayton The plant supplies ballast to rail and

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Unusual oily and wet conditions can slow up conveyor lines. Ton-Tex Oil-Ex conveyor belting will maintain the speed. Its plies of tightly woven duck are specially treated to resist acid, oil, grease, heat, steam, wet conditions, and severe abrasions and gouges. Automotive and metal working plants convey oily parts, assemblies, stampings and scrap metal on Oil-Ex. It lasts longer. Has minimum stretch and shrinkage. It is pliable and can be vulcanized endless. Write today for 20-page Con-veyor Belting catalog! Other TON-TEX belts for conveyor jobs

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HEAVY DUTY to convey bulky, heavy products rapidly. Endures abrasions.

PERMA-CLEAT belts will carry products up steep in-clines better and faster.



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Simpson Paper Converting **Plant Starts Operations**

LOS ANGELES - A new \$250,000 converting plant for Simpson Paper Co., Everett, Wash., began operations recently at 2856 S. Vail Ave. in the Simons Industrial Tract. The facility is a single-story 25,000-sq. ft. building for manufacture of ruled reams, fillers, tablets and allied stationery.

In addition to the plant there is office space and extensive storage areas for raw and finished materials.

Director of the new facility is G. H. Lemyer; R. F. Kenna is in charge of sales, and R. L. Funk, production.

Friday, the 13th, Means Good Luck Day for CF&I in Pueblo

PUEBLO, COLO.-Friday, Mar. 13, was definitely good luck day for the Pueblo plant of Colorado Fuel & Iron Corp., because the open hearth department broke a production record which had stood since Nov. 6, 1952.

Some 204 tons of white hot steel made the difference between the previous all-time record daily tonnage for all furnaces: 5,277 tons, and the whopping 5,481 tons totaled by the 40 heats tapped during the full 24-hour period.

The 17 furnaces at the open hearth have a rated annual capacity of 1,800,000 tons.

Cullman Wheel Opens New Warehouse in L.A.

LOS ANGELES-Speedier service is promised to users of Cullman Wheel roller chains and sprockets with acquisition of a new warehouse at 821 S. Santa Fe Ave. here.

The Chicago firm claims that now almost any size sprocket, flexible coupling or roller chain can be supplied in California on virtually a moment's notice because of the huge stock in the new facility.

Manager of the new warehouse is John Rompel, with Ray Chaddock as West Coast sales representative.

Fresno, Bakersfield Get Liquid Oxygen Storage Units

FRESNO - Two 150,000-cu, ft. liquid oxygen storage and filling units have been installed here and in Bakersfield to meet expanding needs of industry and hospitals in the areas. The installations, developed and made by Linde Co., Division of Union Carbide Corp., are at Baker's Welding Supply Co., 1705 Ventura Ave., here, and at Hopper Machine Works, Inc., 301 26th St., Bakers-

Vacuum insulated tanks, the installations store liquid oxygen at about 300 deg. below zero and can automatically convert the oxygen to a gas to be pumped into conventional cylinders for distribution.

New Phoenix Firm Buys Submersible Pump Co.

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PHOENIX, ARIZ. — Western Industries, Inc., a newly formed corporation headed by Norman H. Hanson, has purchased Submersible Pump Co., 3415 N. 31st Ave.

N. 31st Ave.

K. E. Shaffer, former owner of Submersible, will remain with the firm on a consulting basis and Conrad E. Prince, service manager for the past seven years, will continue in that post, Hanson said.

Ray L. Maurer, formerly associated with the Peerless Pump division of Food Machinery & Chemical Corp., has been named general manager for Submersible, also of Hanson Supply Division, 2310 W. McDowell, another firm operated by Western Industries, Inc.

Lift Truck Service Corp. Appointed by Yale & Towne

FRESNO, CALIF. — Lift Truck Service Corp. has been appointed the Central California franchise representative for industrial lift trucks and tractor shovels made by Yale Materials Handling Division of The Yale & Towne Mfg. Co. The California firm operates sales and service centers here and in Modesto and Stockton.

A service staff of 14, with Thomas Egan, John Totten and Jack Stroud in charge, will handle maintenance and repair work in the new territory. Complete parts inventories will be maintained in all three facilities and the firm will also operate fully-equipped mobile service units.

Service manager in Stockton is *James Louthian*; in Modesto, W. B. McCombs, and in Fresno, G. Nobile.

Hub City Plywood Plans Expansion of Facilities

ALBANY, ORE.—Hub City Plywood Corp. has begun an expansion program that will increase its production by 50% and add some 65 persons to its present work force of 135. The new facility will be a single unit similar to the present plant, but will include a hot press operation to produce exterior grade plywood. Total capacity when expansion is completed is scheduled to be 15,000,000 sq. ft.

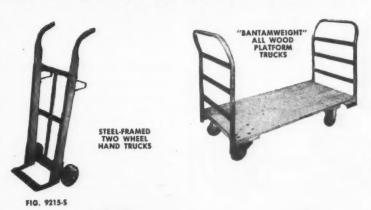
Royal Industries Dedicates New Research Facility

ALHAMBRA, CALIF.—Royal Industries, Inc., recently dedicated its new \$100,000 engineering research and development center, a 10,000 sq. ft. facility at 1031 Westminster. The firm is currently negotiating a merger which would include its subsidiary, Royal Jet; Vard, Inc. of Pasadena and Ideal-Aerosmith of Hawthorne, Calif., and Cheyenne, Wyo.

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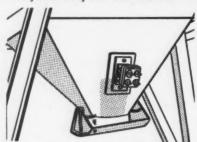


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—See listing in Directory Section

\$500,000 Fabricating Plant Scheduled in Albuquerque

ALBUQUERQUE, N. M., — Rio Grande Steel Products, Inc., has announced plans to construct a new \$500,000 fabricating plant on North Second St., according to Walter T. Jones, president.

The firm's three divisions, located in the Sixth Street-Haines NW area, will be brought together on the 27-acre location, Jones said. Four buildings will be erected at the start and it is hoped the firm can occupy the plant by the end of the year or early 1960.

Pioneer Aluminum to Handle J & L Stainless Strip

LOS ANGELES, CALIF. — Pioneer Aluminum, Inc., 5251 W. Imperial Highway, has been appointed by Jones & Laughlin Steel Corp., Detroit, as distributor for J & L stainless steel in California. Pioneer will have complete stocks of stainless steel sheet, strip, bar and wire.

less steel sheet, strip, bar and wire.
One of the West's largest distributors of aluminum aircraft extrusions, Pioneer carries more than 2,500,000 lb. and over 7,700 shapes of these products in stock.
The firm also manufactures 921-T-DC
S. E. Union.

aluminum alloy tool and jig plates used in metal working industries. Pioneer also either produces or distributes zinc base tooling plate; aluminum sheet, rod and bar stock; sheet metal fasteners, and aircraft solid rivets.

Since 1956 the firm has been a subsidiary of Morris P. Kirk & Son, Inc., West Coast unit of National Lead Co.

RCA Plans New Systems Lab Facility Near Tucson

TUCSON, ARIZ.—Radio Corporation of America will relocate its Surface Communications Systems laboratory, now located here, to a site some 20 mites southeast of here. Plans call for a 12,000-sq. ft. facility to be built on a 100-acre plot and leased to the company. Occupancy is scheduled for August.

To Increase Capacity 500%

PORTLAND — I. Layton's Creations, Inc., pillow manufacturing firm, will increase its production capacity five-fold with leasing of 60,000-sq. ft. facilities at 225 E. Main St. The firm will move this month from its present quarters at 506 S. E. Union.

New Set-up for Towmotor-Gerlinger Distribution



Pictured left to right: Mike Hanlon, General Herbert, Kesmeth Nosworthy, Fraser Roes, service manager.

Towmotor and Gerlinger materials handling equipment — including gasoline, diesel and LP-Gas powered fork lift trucks, material carriers and industrial tractors—is being distributed throughout Northern California by T-G Fork Lift sales and service outlets. These outlets are owned and operated by Gen. James K. Herbert and Kenneth D. Nosworthy. Herbert was formerly president of Roma Wine Co. and Nosworthy was formerly chief materials handling engineer of that company.

Herbert, who is now president and chief administrative officer of T-G Fork Lift Sales, and Nosworthy, who is executive vice president and general manager, are headquartered at 699 Fourth St., Oakland. Associates at the Oakland office include: Mike Hanlon, sales manager, and Bruce McKillen, Walter O'Brien, Sheldon Martin, and Bob Pische, sales engineers

Nosworthy is also owner and president of Valley Forklift Sales Co. and Valley Forklift Rental and Equipment Co. of Fresno, Towmotor sales-service representative for Central and Southern San Joaquin Valley. Bill Denton is manager and Stan Penza is sales engineer.

The T-G Fork Lift Sales in San Jose is located at 1230 North 13th St., where Al Brewer is manager, assisted by Ted Luedtke. In Sacramento, the office is located at 6380 Freeport Blvd. Norman Ortner is in charge and sales engineers are Walter Koepp and Jack Toedt. The T-G Fork Lift Sales in Eureka is managed by Pat Sanders, manager, and Andy Baku, sales engineer. T-G Fork Lift Sales outlets also handle Lull Hi-Lift universal loaders.

Oregon Sawmill Firm Doubles Facilities

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corvallis, ore.—Facilities for sawmill production have been doubled recently by Mater Machine Works, Inc., with acquisition of additional manufacturing space next to its present plant. Principal use for the new area will be for building Mater Packaged Automation Mills.

The Corvallis firm is reportedly the only company in the country which builds complete turn-key mills, including engineering, construction, automation equipment and putting into operation. The company makes a complete line of automation sawmill equipment.

Pueblo Plant of CF&I Adds New Galvanizing Line

PUEBLO, COLO. — A new galvanizing line has been added at the Pueblo plant of Colorado Fuel & Iron Corp. to furnish larger weight and diameter coils. Bundles up to 600 pounds can be coiled on the unit, compared with the previous maximum of 400 pounds.

Wire being processed through the new unit is charcoal wiped to produce a coating of .85 ounce or more of zinc per square foot of surface.

There are five wire galvanizing units in the Pueblo plant's wire mills. Two units, including the new one, produce charcoal wiped high carbon wire. Three produce asbestos wiped low or high

Campbell Supply to Handle Acme Steel Slotted Angle

seattle — Campbell Industrial Supply at 3433 Airport Way here, and at 1924 Pacific Ave., Tacoma, has been appointed a distributor for the new AIM brand slotted angle made by Acme Steel Co. The firm will stock the framing material, which comes in two sizes and in 10-piece packages of 10 or 12-ft. lengths, as well as a line of accessories that multiply its uses.

Dole to Build Central Warehouse in Oakland

OAKLAND, CALIF.—Dole Hawaiian Pineapple Co. has announced construction of a new central distribution warehouse scheduled for completion before next summer's packing season begins. The new facility, adjacent to another Dole plant, near the intersection of San Leandro St. and Seminary Ave., will have 72,000 sq. ft. of floor space to handle 1,000,000 cases.

The warehouse will stock products packed at Dole plants here, in San Jose and in Salem, Ore., from which buyers can order a complete assortment for inclusion in a single rail car.

Northwest Packing Co. Adds to Storage Space

PORTLAND—Construction of a 50,000-sq. ft. building to enlarge its warehouse facilities was begun recently by the Northwest Packing Co. on Columbia Blvd. The building, which adjoins the firm's present storage and rail facilities, is scheduled for completion in time for the 1959 processing season for fruits and vegetables.

Buschman Appoints New Rep, Kelley-Fox, in Denver

Rep, Kelley-Fox, in Denver
DENVER — The E. W. Buschman Co.,
Cincinnati, has appointed the KelleyFox Co. as a new representative in
Colorado. The firm, which recently
occupied new quarters at 124 W. 5th
Ave., will stock the Buschman standardized portable conveyors and engineered line and cable conveyors.

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Highlights of Space Age Conference



Ducommun Metals & Supply Co. featured metals for missiles. Left to right: Cliff Collins, William H. Skinner, Frank Kruzie (all sales representatives) and Larry Collins, sales manager.



Special brazing for missiles was emphasized at the Superweld Corp. booth. Warren Weltmer, technical service sales manager, is holding an example.



Fabrication techniques and facilities were pointed out at the Standard Steel Corp. exhibit. That's Ed Maguire, manager of sales, alloy division.



The Wickwire Spencer Steel Div. of Colorado Fuel & Iron Corp. displayed Space Age products. On hand were Wm. Frey (left) and J. Peter Brehm, field reps.

New castings techniques were shown by Arwood Precision Casting Corp. Pictured are William P. Ailes (left) and George H. Warde (right), sales manager,







Metals Distributing Firm Established in Los Angeles

LOS ANGELES-Metals Sales Incorporated is a recently created metals distributing firm which operates from a new 115,000-sq. ft. plant on Union Pacific Avenue in East Los Angeles. The firm has acquired the complete metal inventory and has leased the metals warehouse facilities of Union Hardware and Metal Co.

Radio-equipped trucks, advanced material handling methods, a 14-in. automatic feed Racine hacksaw, an electric eye flame cutter and other facilities are in use by the new firm, which offers hacksawing, grinding, shearing

and flame cutting services.

The firm will stock carbon steel, aluminum, brass, copper and stainless in bars, sheets, shapes, plates and pipes. Among the mills Metals Sales represents are Alan Wood, Bethlehem, Bliss and Laughlin, Inland, Jones and Laughlin, Kaiser, Pacific Steel, Pacific Tube, Republic, Revere and U. S. Steel.

Silver Steel of Denver to Handle Reynolds Aluminum

DENVER — Silver Steel Co., which has warehouses here and in Albuquerque, has been named a distributor of Reynolds aluminum products, covering Colorado, Wyoming, Utah and New Mexico. The firm will handle Reynolds aluminum sheet, plate, extrusions, wire, rod, bar and other products.

According to Harold Silver, president of the firm, the company is planning an expansion program that will add to present plants and involve opening of warehouse facilities in other cities.

U. S. Steel Pipe Mill in Utah Resumes Operations

PROVO, UTAH — The Utah pipe mill of this office.

the Consolidated Western Steel Division, United States Steel Corp., near Provo has resumed operation after a five-month shutdown, according to H. M. Thomas, general superintendent. Both the large diameter and small diameter mills have begun a four-day week with recall of some 150 workers.

Ohio Piping Firm Plans Western Plant in Newark

NEWARK, CALIF. — Ric-wiL, Inc., Barberton, Ohio, manufacturer of underground steam distribution systems, will build a Western plant here at Sycamore St. and Central Ave., to produce piping systems for the 11 Western states. Scheduled for completion early this year, the new plant will give the firm manufacturing facilities in California, Ohio and Canada.

Zero Mfg. of Burbank Buys White Aircraft Corp.

BURBANK, CALIF.—Zero Manufacturing Co., manufacturer of metal enclosures and packaging for electronics and missile industries, recently acquired White Aircraft Corp., Palmer, Mass. The new subsidiary, to be known as White Division, produces electronics enclosures, carrying cases and military specifications packaging.

Bernard Epps Names Tubing Rep in Oakland

LOS ANGELES — Bernard Epps & Co., 2332 E. 38th St., announces it now offers sales representation for its tube manufacturing division in the Northern California area. According to Bernard Epps, president, the firm has appointed Ziegler Steel Service Corp., through its Oakland branch at 727 66th Ave., as mill sales representative. Philip S. Champion, division manager, is in charge of

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Ziegler Steel Now Carries Electric Weld Tubing

LOS ANGELES, CALIF. — Ziegler Steel Service Corp., 7022 Bandini Blvd., now carries cold rolled electric weld tubing in both rounds and squares manufactured by Western tube mills. The firm has warehouses here, in North Hollywood and in Oakland. The latter branch is acting as mill representative for the Epps Steel Tube Division.

Ziegler also has announced it is offering a range of large-size square and rectangular structural steel tubing that is finding wide application as columns and beams. These products are manufactured on a custom basis by a Western producer to exact length, eliminating the usual remnant problem.

John Bell Co. Named Rep for Clayton Mark Unions

LOS ANGELES, CALIF. — The John G. Bell Co., 618 Crocker St., has been named California representative for Clayton Mark & Co., Evanston, Ill., manufacturer of forged steel products. The Los Angeles firm will distribute the Clayton Mark line including Petro, Hydro, Handlebar and Mark unions; check valves and high pressure fittings.

These specialized industrial unions are designed to join sections of pipe carrying liquids or gases at high pressures and temperatures, such as in chemical missiles, steel, food processing and atomic energy industries.

Columbia-Geneva Utah Structural Mill Re-opens

PROVO, UTAH — Some 245 workers have been recalled in re-opening of the structural mill of Columbia-Geneva Steel Division, U. S. Steel Corp., at Geneva Works near here, which has been closed since January. While the bulk of those recalled will be rolling mill, other workers will return to the open hearth, coke and coal, chemical, transportation and yards units and at Ironton plant.

Denver Innerspring Co. Adds to Facilities

DENVER — Denver Innerspring Co., 5395 E. 39th Ave., is building an addition to its manufacturing plant for expansion of present shipping, receiving and warehouse facilities.

The 12,000-sq. ft. extension will prove a total area of 32,000 sq. ft. of plant and office space.

The firm, headed by H. R. George and Earl Winders, manufactures innersprings for bedding and furniture.

Racine, Wis., Electric Firm Names Two California Reps

RACINE, WIS. — Two California firms have been appointed as sales representatives for the electronics components division of Webster Electric Co., Racine. Named to service the Southern California-Arizona territory was Simonite-

Lewis & Associates of Los Angeles. The Northern California and Nevada territory will be represented by Moulthrop & Hunter, San Francisco. The two firms will handle Webster's phono pickups and cartridges, Ekotape tape recorders and industrial sound components.

Rapids-Standard Names Dealer in Sacramento

SACRAMENTO, CALIF. — Capital Rubber Products, 2513 Broadway, has been named a dealer for Rapisteel slotted angle and Rapistan casters, manufactured by the Rapids-Standard Co., Inc., Grand Rapids, Mich. The local firm will serve this area with industrial and institutional casters, wheels and handtrucks. The slotted angle, a new construction material will be offered in two sizes—14 gage and 12 gage.

New Facility Planned for Hughes Tube Division

OCEANSIDE, CALIF. — Vacuum Tube Products, recently-acquired division of Hughes Aircraft Co., plans occupancy of a 23,000-sq. ft. building to be built here. The leased facility will adjoin the present Vacuum Tube Products plant at 2020 Short St. and will house additional vacuum tube production lines.

David Brown Appoints Berg Evans Chain Co.

PORTLAND—David Brown, Inc., San Leandro, Calif., has named Berg Evans Chain Co. as a distributor for Radicon speed reducers and complete drives, representing the gear concern in Oregon and Washington, west of the Cascades. Brown also recently appointed Raymond Baty, Portland, as a factory sales representative.

Juice Plant Scheduled in Cashmere, Wash.

CASHMERE, WASH. — The Charbonneau Packing Co. of Selah, Wash. plans to build an apple juice plant here and has purchased a 10-acre parcel of land for the facility. Construction is scheduled to start this spring, with production planned for September.

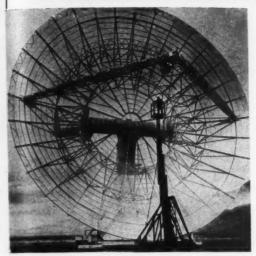
Fastener Corp. Names Distributor in Seattle

SEATTLE — Duo-Fast Washington, Inc., 308 W. Republican St., has been named a distributor for industrial stapling equipment made by the Fastener Corp., Franklin Park, Ill. The firm will cover Washington, Alaska, Northern Idaho and western Montana.

New Recold Distributors

SAN FRANCISCO — California Refrigerator Co., with offices here and in Oakland, has been appointed a wholesale distributor for Recold Corp. refrigeration products in Northern California. Refrigerating & Power Specialties Co. has been similarly appointed and will serve the Northern California, Oregon and Washington areas.

West's Biggest Hydraulic Lift Handles Maintenance for Radio Telescope Lab



ON HIS WAY UP to check adjustments on the prime focus of one of the huge radio telescopes at Big Pine, this engineer stands on the platform of what is believed to be the highest maintenance telescopic lift ever built in this country. The two "Big Ear" radio telescopes are at the California Institute of Technology's radio observatory.

BIG PINE, CALIF.—The highest hydraulic telescopic maintenance lift in the West (and in the United States) is now doing duty at the California Institute of Technology's new radio telescope laboratory near here.

The lifter is used for maintenance work on the antenna dishes of the observatory's two radio

telescopes.

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The 90-ft.-diameter steel mesh antenna dishes are the largest in this country. They are used for radio astronomy in tracking the sound waves of stars millions of miles away.

The telescopic lift has special characteristics to meet the exacting needs of Caltech's electronic star tracker. The lifting unit extends to 54 ft. in less than a minute. Operated with foot pedal controls by a person riding on the platform, the lifter can be stopped at any point between the lowest level of 13 ft. and the full height, with automatic stop at the top. The three-foot square platform is mounted on a series of five telescoping U-channeled sections fitted within each other.

The hydraulic lift is used by Caltech scientists for access to the radio receiving equipment at the radio telescopes' prime focus, located at the peak of a boom above the 90-ft. dishes. The base of the unit is eight feet square for road traveling, but can be enlarged to thirteen feet square by outriggers. Screw-jacks on the outriggers stabilize the unit on the ground.

For certain astronomy work,

separation between the two antennas must be variable, so their wheeled mountings ride on railroad tracks 1600 ft. long. One dish moves on east-west tracks, the other on north-south tracks.

Because the antennas are movable, the lifter is portable and can be easily moved to where prime focus might be required.

The unit was specially designed by the Special Products Div. of the Colson Corp., Somerville, Mass.







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Acme Steel Company	Gate City Steel, Inc	Peerless Electric Co.
Air Reduction Pacific Company	General Metals Corporation	Fan & Blower Division
Alan Wood Steel Company	Foundry and Forge Division	Pennzoil Company, The140
Allen-Bradley Company 69	Globe Hoist Company125	Plymouth Locomotive Division Fate-Root-Heath Company
American Brass Company, The	Goodyear Rubber Company 64	Polymer Corporation, The
American Chain & Cable Co., Inc.		Porta House
American Chain Division	н	Puget Sound Fabricators, Inc
American Chain Division	Hollaender Mfg. Co 70	
Armco Drainage and Metal Products, Inc 67	Hough, Frank G., Co., The 57	
Automatic Transportation Company	Hub City Iron Company	Billion Tool Common The 10
Division of The Yale & Towne	Hyster Company 63	Ridge Tool Company, The 18 Rowe Methods 72
Manufacturing Co		Rust-Oleum Corporation 23
	1	Ryerson, Joseph T., & Son, Inc. 3
В	Industrial Air Products Co	nyerson, sosephi i., a son, inc.
Babbitt Steam Specialty Co	Industrial Indomnity Company	
Bellows Company of California 22		•
Buehrer, E. C., Associates, Inc		Sarco Company, Inc
Bulldog Electric Products Company 5	Jeffrey Mfg. Co. Industrial Division	Schramm, Inc
	Johnston, A. P., Company, Inc	Signode Steel Strapping Company 19
c	Jones & Laughlin Steel Corp.	Sigma Engineering Co
Chain Belt Company	Stainless and Strip Division 27	Smoot-Holman Company
Chainveyor Corp		Soule Steel Company
Chisholm-Moore Hoist Division	K	Standard Horse Nail Corporation 134
Columbus McKinnon Chain Corp 151	Kilsby, Perry, Inc	Standard Oil Company of California 15
Cleveland Tramrail Division	Kinney Mfg. Division,	Storage Products Corporation 66
The Cleveland Crane & Eng. Co48 & 49	The New York Air Brake Company 26	
Cleveland Vibrator Co., The		1
Colorado Fuel and Iron Corporation 20	L	Toledo Pipe Threading Machine Co., The 14
Colson Equipment & Supply Co131	Laher Spring and Tire Corporation 70	Ton-Tex Corporation
Colt Ventilation of America, Inc 8	Lewis, G. B., Company	Towmstor Corporation
	Link-Belt Company	Turlock Iron & Machine Works
D	Lufkin Foundry & Machine Co	
Darnell Corporation, Ltd		U
Diamond Chain Co., Inc 61	M	Universal Molding Company 161
Dick, R. & J., Company, Inc	Magline Inc	
Dodge Manufacturing Corporation 6 & 7	Master Fan Corp	v
Ducommun Metals & Supply Co Cover 3	Micro Switch	Viking Forge & Steel Company 159
	A Division of Honeywell	Viking Forge & Steel Company
E	Minnesota Mining &	
Easterday Supply Company	Manufacturing Company Cover 4	W
Electric Steel Foundry Company	Monarch Rubber Company, The	Wagner Electric Corporation
ElectroLift, Inc		Washington Iron Works
Elwell-Parker Electric Co., The	N	White Motor Company, The
	National Supply Company, The 9	
F	National Tank and Manufacturing Co 136	Y
Fairbanks Company, The	New York Air Brake Company, The	Yale & Towne Mfg. Co.
Fate-Root-Heath Company, The	Kinney Mfg. Division	Automatic Transportation Co
Plymouth Locomotive Division		Yale Materials Handling Division 17
Fibreboard Paper Products Corporation 29	,	Yarnall-Waring Company 130
Food Machinery Corporation	Pacific Gas and Electric Company 142	
John Bean Division	Pacific Intermountain Express Co 150	
Foster, L. B., Co	Pacific Telephone & Telegraph Co., The 59	2
Foucar, Ray & Simon	Pacific Wire Rope Company135	Ziegler Steel Service Corporation 58

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